

JAN

Access DB# 84664

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: FONDA Examiner #: 71970 Date: 12-16-02  
Art Unit: 1623 Phone Number 30 8-1620 Serial Number: 09/890562  
Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

8819 8405  
If more than one search is submitted, please prioritize searches in order of need.  
\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_  
*see attached assignment sheet*

Earliest Priority Filing Date: 2-1-00

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

RECEIVED  
17 DEC 2003  
STIC

*Please search compounds of  
attached claims and methods  
of using them to treat or  
prevent arteriosclerosis/atherosclerosis*

BEST AVAILABLE COPY

Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Library  
CM1 1E07 - 703-308-4498  
jan.delaval@uspto.gov

*Thanks.  
K.*

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>Jan</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/>	
Searcher Phone #: <u>4498</u>	AA Sequence (#) _____	Dialog _____	
Searcher Location: _____	Structure (#) <input checked="" type="checkbox"/>	Questel/Orbit _____	
Date Searcher Picked Up: <u>1/22/03</u>	Bibliographic _____	Dr. Link _____	
Date Completed: <u>1/22/03</u>	Litigation _____	Lexis/Nexis _____	
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: <u>15</u>	Patent Family _____	WWW/Internet _____	
Online Time: <u>+ 25</u>	Other _____	Other (specify) _____	

=> fil reg

FILE 'REGISTRY' ENTERED AT 18:51:25 ON 22 JAN 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 JAN 2003 HIGHEST RN 479664-17-0

DICTIONARY FILE UPDATES: 21 JAN 2003 HIGHEST RN 479664-17-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

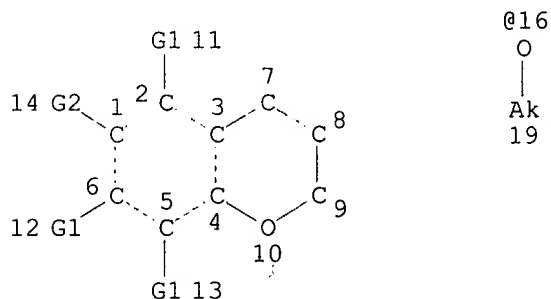
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d sta que 118

L1 STR



VAR G1=H/AK

VAR G2=OH/16

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 9

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

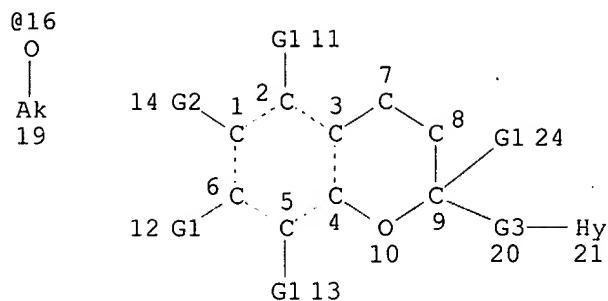
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L3 2795 SEA FILE=REGISTRY CSS FUL L1

L6 STR

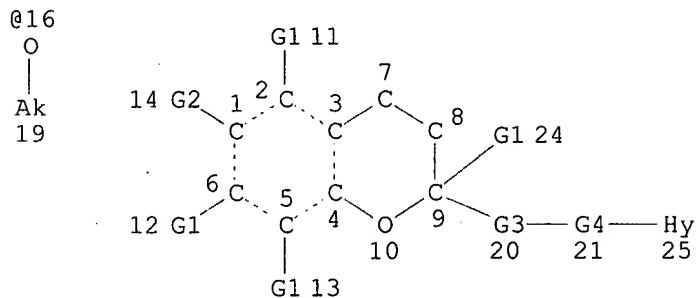
Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Library  
CM1 1E07 - 703-308-4498  
[jan.delaval@uspto.gov](mailto:jan.delaval@uspto.gov)



VAR G1=H/AK  
VAR G2=OH/16  
REP G3=(0-6) CH2  
NODE ATTRIBUTES:  
CONNECT IS M1 RC AT 21  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1 O AT 21

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 19

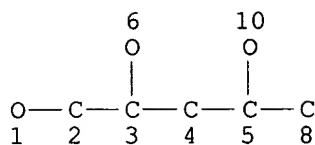
STEREO ATTRIBUTES: NONE  
L8 38 SEA FILE=REGISTRY SUB=L3 CSS FUL L6  
L10 STR



VAR G1=H/AK  
VAR G2=OH/16  
REP G3=(0-6) CH2  
REP G4=(0-1) O  
NODE ATTRIBUTES:  
CONNECT IS M1 RC AT 25  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1 O AT 25

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE  
L11 59 SEA FILE=REGISTRY SUB=L3 CSS FUL L10  
L12 21 SEA FILE=REGISTRY ABB=ON PLU=ON L11 NOT L8  
L14 STR



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L16 4 SEA FILE=REGISTRY SUB=L3 SSS FUL L14  
 L17 2 SEA FILE=REGISTRY ABB=ON PLU=ON L16 NOT (MXS/CI OR C29H50O2)  
 L18 23 SEA FILE=REGISTRY ABB=ON PLU=ON (L12 OR L17)

=> d his l18-

(FILE 'REGISTRY' ENTERED AT 18:33:57 ON 22 JAN 2003)  
 L18 23 S L12,L17  
 SAV L18 FONDA890C/A

FILE 'HCAOLD' ENTERED AT 18:44:14 ON 22 JAN 2003  
 L19 0 S L18

FILE 'HCAPLUS' ENTERED AT 18:44:18 ON 22 JAN 2003  
 L20 42 S L18  
 E CCI/PA,CS  
 L21 28 S E3-E34 AND L20  
 E YOSHIKAWA T/AU  
 L22 272 S E3  
 E YOSHIKAWA TOSHIKAZU/AU  
 L23 661 S E2,E3  
 E MURASE H/AU  
 L24 26 S E3  
 L25 47 S E25  
 L26 1 S E27  
 E YOSHIDA N/AU  
 L27 395 S E3,E4  
 E YOSHIDA NORIMASA/AU  
 L28 165 S E3  
 L29 32 S L20 AND L22-L28  
 L30 3 S L20 AND ?ARTERIO?  
 E ANTIARTERIO/CT  
 L31 5486 S E6,E7  
 E E6+ALL  
 E E6+ALL  
 L32 26978 S E5+NT  
 L33 2 S MONKEBERG?(L)?SCLERO?  
 L34 3 S L20 AND L31-L33  
 L35 3 S L30,L34  
 L36 19 S 2 ALPHA D GLUCOPYRAN? METHYL 2 5 7 8 TETRAMETHYLCHROMAN 6 OL

FILE 'REGISTRY' ENTERED AT 18:49:05 ON 22 JAN 2003  
 L37 1 S 160455-95-8  
 L38 0 S 160455-95-8/CRN

FILE 'HCAPLUS' ENTERED AT 18:49:32 ON 22 JAN 2003

L39 36 S L37  
L40 37 S L36,L39  
L41 43 S L20,L29,L30,L35,L40  
L42 40 S L41 AND (PD<=20011009 OR PRD<=20011009 OR AD<=20011009)  
L43 3 S L41 NOT L42

FILE 'REGISTRY' ENTERED AT 18:51:25 ON 22 JAN 2003

=&gt; d ide can l37

L37 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 160455-95-8 REGISTRY

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol

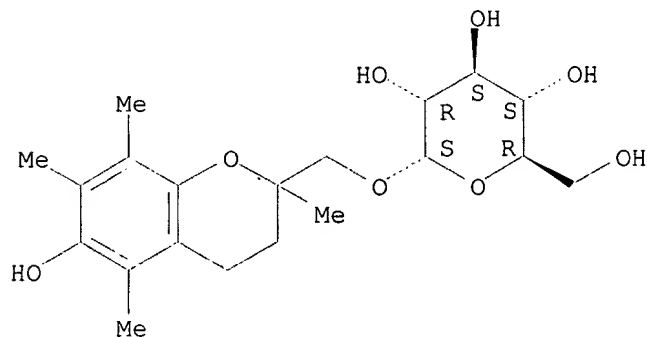
FS STEREOSEARCH

MF C20 H30 O8

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

36 REFERENCES IN FILE CA (1962 TO DATE)

3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

36 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:257414

REFERENCE 2: 137:159008

REFERENCE 3: 136:335241

REFERENCE 4: 136:303396

REFERENCE 5: 136:299474

REFERENCE 6: 136:284177

REFERENCE 7: 136:257109

REFERENCE 8: 136:212827

REFERENCE 9: 136:189097

```
=> s 118 not 137
L44          22 L18 NOT L37
```

```
L44  ANSWER 1 OF 22  REGISTRY  COPYRIGHT 2003 ACS
RN   445311-31-9  REGISTRY
CN   D-Glucose, 2-deoxy-2-[[ (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-
      benzopyran-2-yl)carbonyl]amino]- (9CI)  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C20 H29 N O8
SR   CA
LC   STN Files:    CA, CAPLUS
```

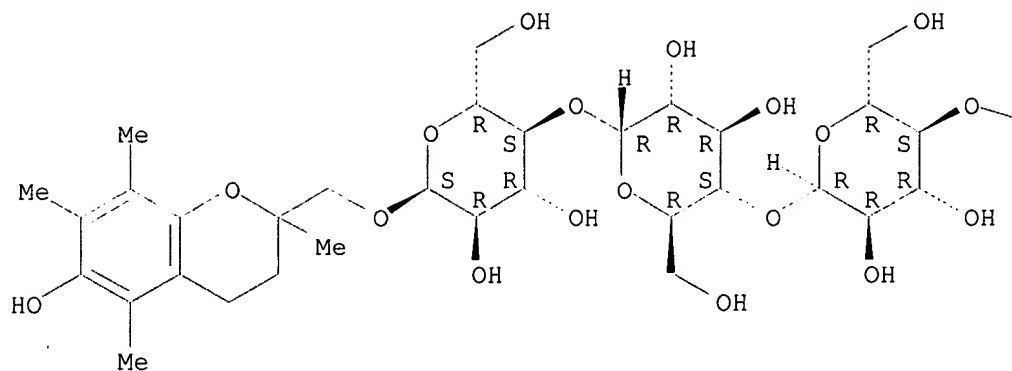
Cc1cc(C)c(O)c(C)c1C2OCC[C@H](C(=O)N[C@@H](C=O)[C@H](O)[C@@H](O)[C@H](O)CO)C2

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

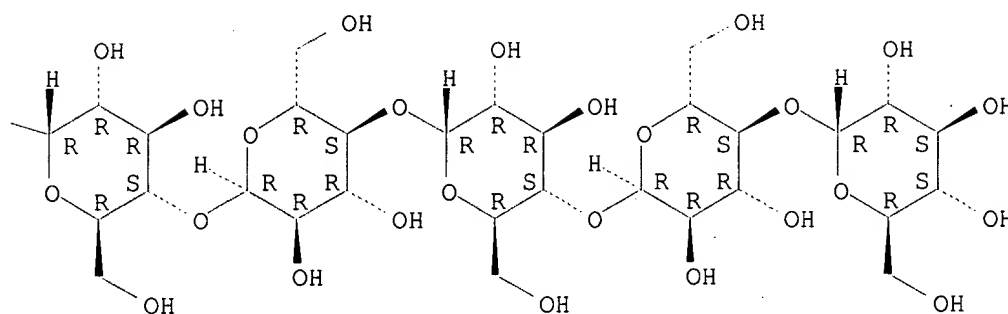
```
L44  ANSWER 2 OF 22  REGISTRY  COPYRIGHT 2003 ACS
RN   364783-93-7   REGISTRY
CN   .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-
      benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-
      glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-
      .alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-
      (1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-
      glucopyranosyl-(1.fwdarw.4)- (9CI)  (CA INDEX NAME)
FS   STEREOSEARCH
MF   C62 H100 O43
SR   CA
LC   STN Files:    CA, CAPLUS
```

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

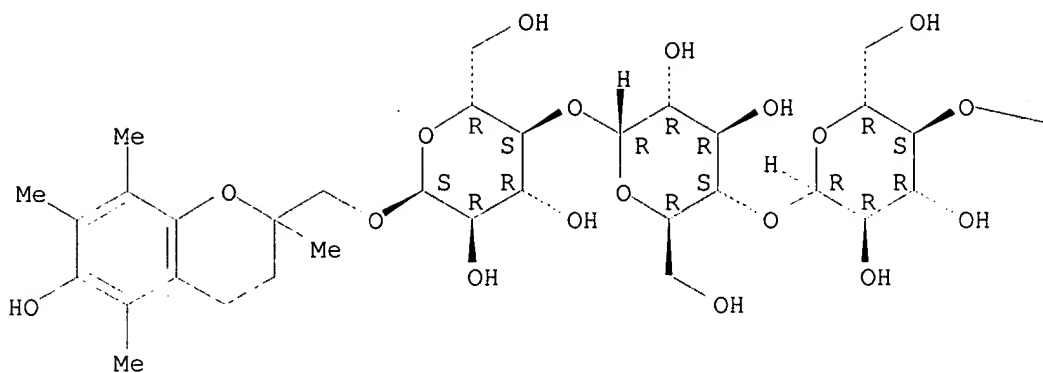
1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:293712

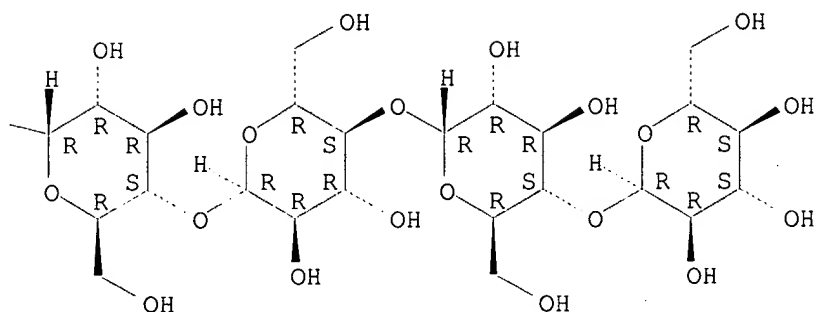
L44 ANSWER 3 OF 22 REGISTRY COPYRIGHT 2003 ACS  
 RN 364783-92-6 REGISTRY  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C56 H90 O38  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

REFERENCE 2: 135:293712

L44 ANSWER 4 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 362481-00-3 REGISTRY

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

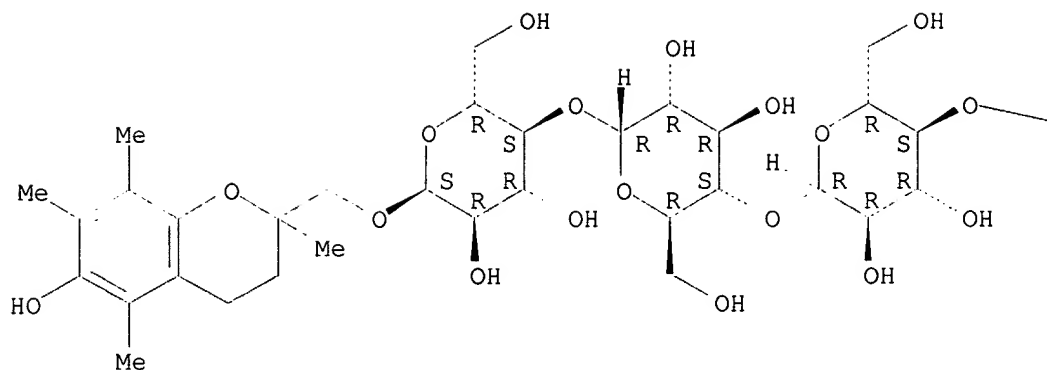
MF C50 H80 O33

SR	CA
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

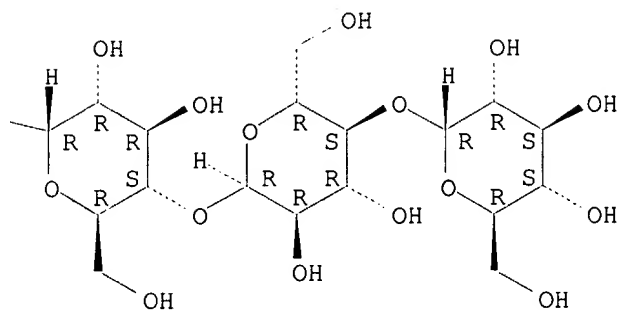
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1962 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

REFERENCE 2: 135:293712

REFERENCE 3: 135:274586

L44 ANSWER 5 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 362480-98-6 REGISTRY

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

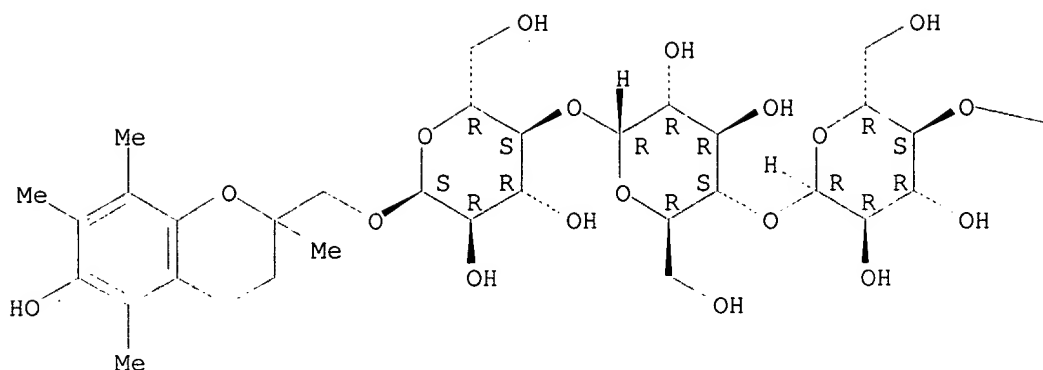
MF C44 H70 O28

SR CA

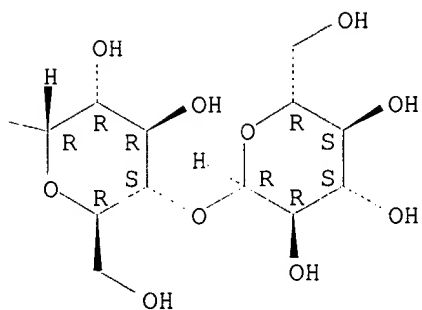
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP.' FORMAT\*\*

3 REFERENCES IN FILE CA (1962 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

REFERENCE 2: 135:293712

REFERENCE 3: 135:274586

L44 ANSWER 6 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 362480-97-5 REGISTRY

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI)  
(CA INDEX NAME)

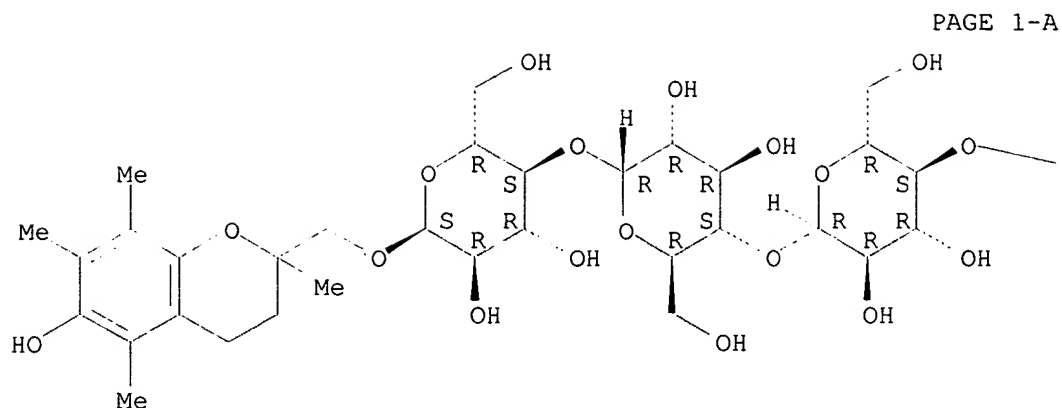
FS STEREOSEARCH

MF C38 H60 O23

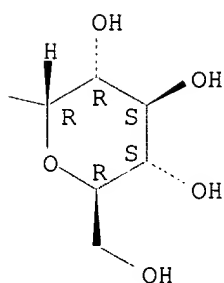
SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1962 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:189097

REFERENCE 2: 136:10935

REFERENCE 3: 135:293712

REFERENCE 4: 135:274586

L44 ANSWER 7 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 362480-96-4 REGISTRY

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

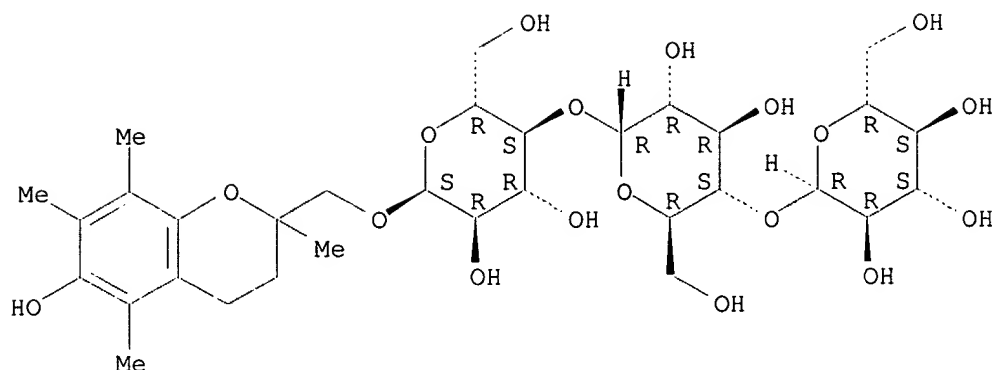
FS STEREOSEARCH

MF C32 H50 O18

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1962 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:189097

REFERENCE 2: 136:10935

REFERENCE 3: 135:293712

REFERENCE 4: 135:274586

L44 ANSWER 8 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 246262-53-3 REGISTRY

CN .beta.-D-Xylopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

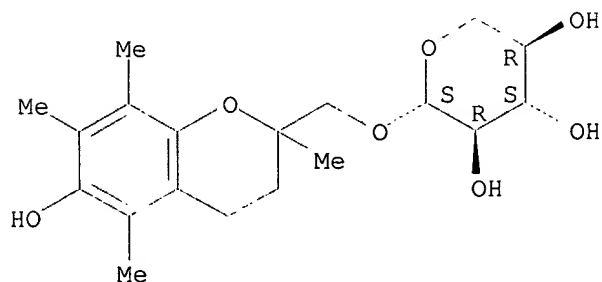
FS STEREOSEARCH

MF C19 H28 O7

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

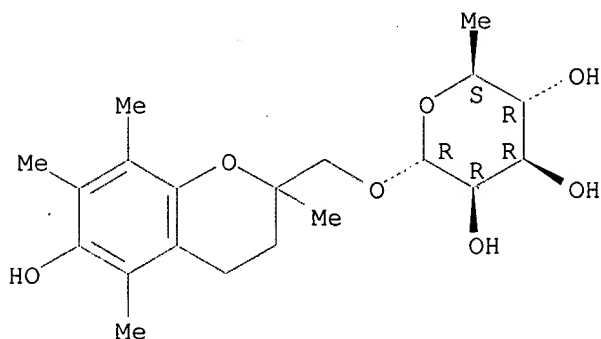
REFERENCE 1: 131:287968

L44 ANSWER 9 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 246262-52-2 REGISTRY

CN .alpha.-L-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H30 O7  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



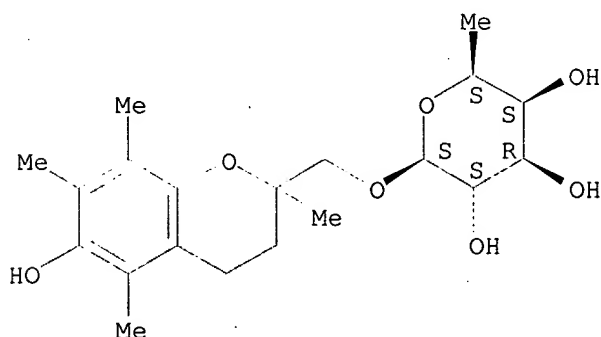
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 131:287968

L44 ANSWER 10 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 246262-51-1 REGISTRY  
CN .beta.-L-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H30 O7  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



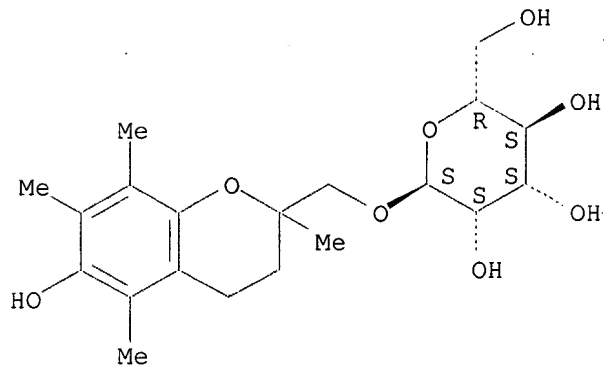
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 131:287968

L44 ANSWER 11 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 220282-94-0 REGISTRY  
CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H30 O8  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1962 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1962 TO DATE)

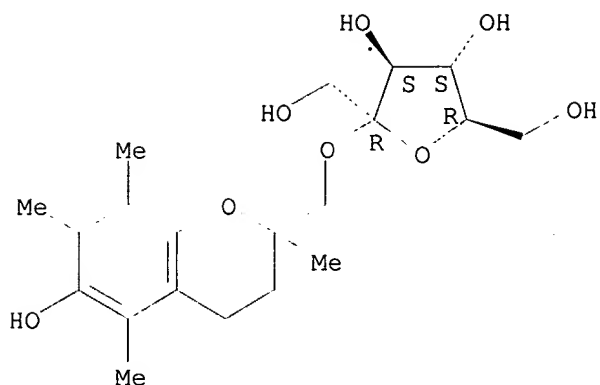
REFERENCE 1: 133:271412

REFERENCE 2: 131:287968

REFERENCE 3: 130:152654

L44 ANSWER 12 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 220282-93-9 REGISTRY  
CN .beta.-D-Fructofuranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C20 H30 O8  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

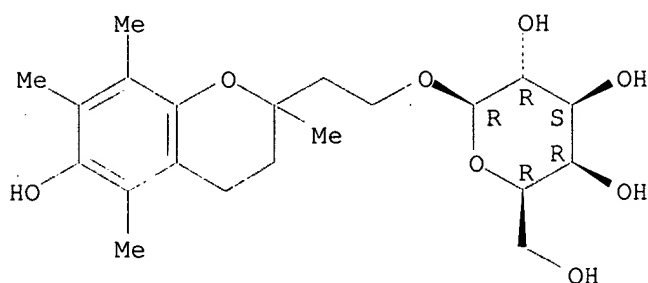
2 REFERENCES IN FILE CA (1962 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 133:271412

REFERENCE 2: 130:152654

L44 ANSWER 13 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 220282-92-8 REGISTRY  
CN .beta.-D-Galactopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C21 H32 O8  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

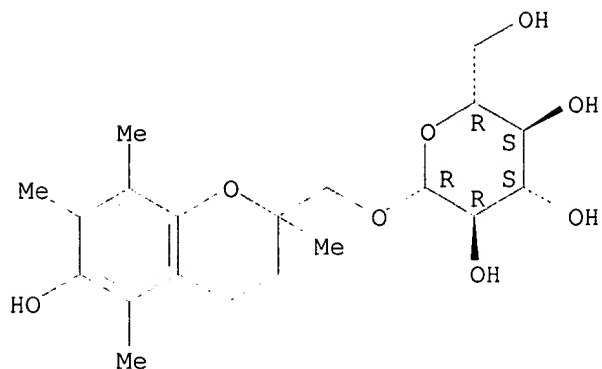
1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 130:152654

L44 ANSWER 14 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 220282-91-7 REGISTRY  
CN .beta.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)  
FS STEREOSEARCH

MF C20 H30 O8  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



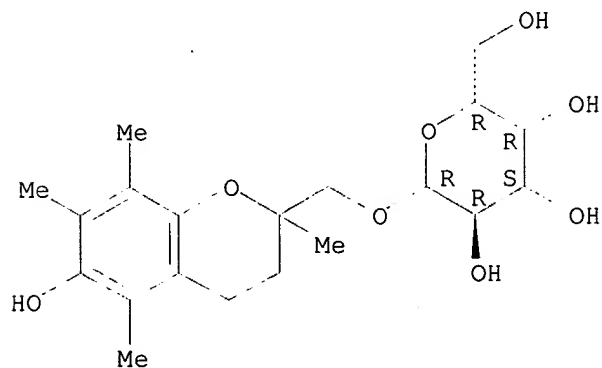
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 130:152654

L44 ANSWER 15 OF 22 REGISTRY COPYRIGHT 2003 ACS  
 RN 197315-53-0 REGISTRY  
 CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C20 H30 O8  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1962 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 133:271412

REFERENCE 2: 131:287968

REFERENCE 3: 128:267792

REFERENCE 4: 127:307610

L44 ANSWER 16 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 187799-02-6 REGISTRY

CN .alpha.-D-Glucopyranoside, [(2S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

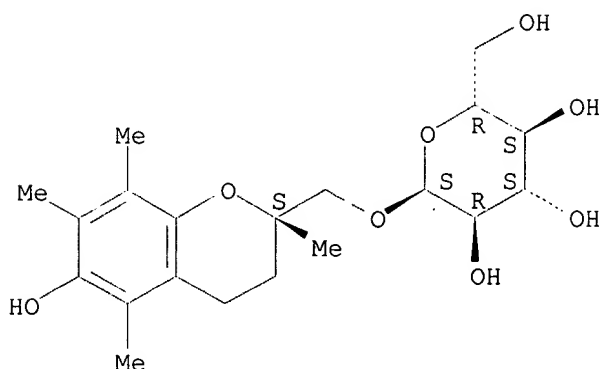
FS STEREOSEARCH

MF C20 H30 O8

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 137:89990

REFERENCE 2: 126:199722

L44 ANSWER 17 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 187799-01-5 REGISTRY

CN .alpha.-D-Glucopyranoside, [(2R)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

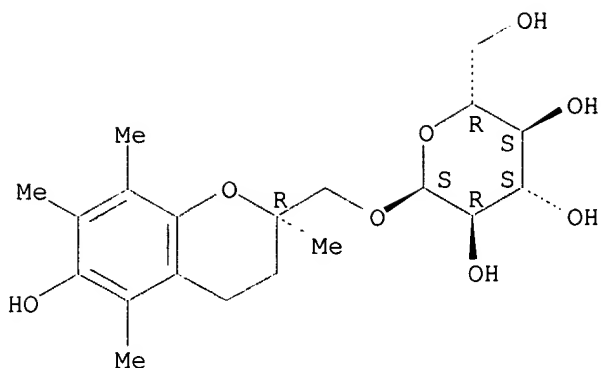
FS STEREOSEARCH

MF C20 H30 O8

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



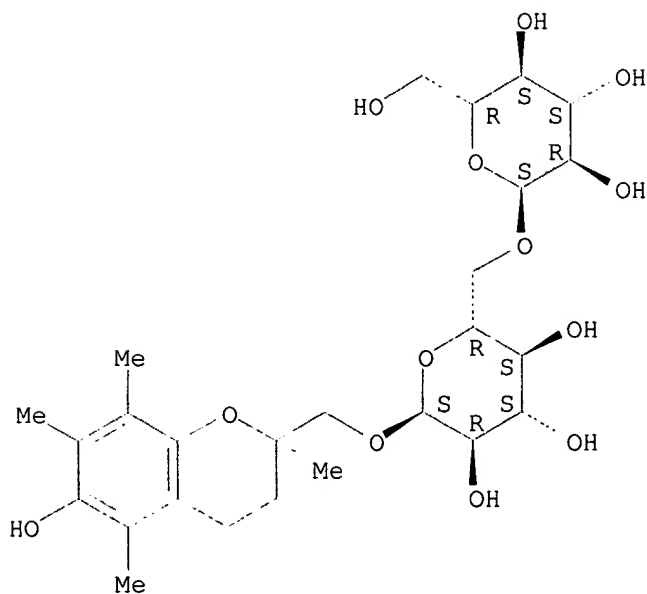
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 126:199722

L44 ANSWER 18 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 184843-57-0 REGISTRY  
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C26 H40 O13  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



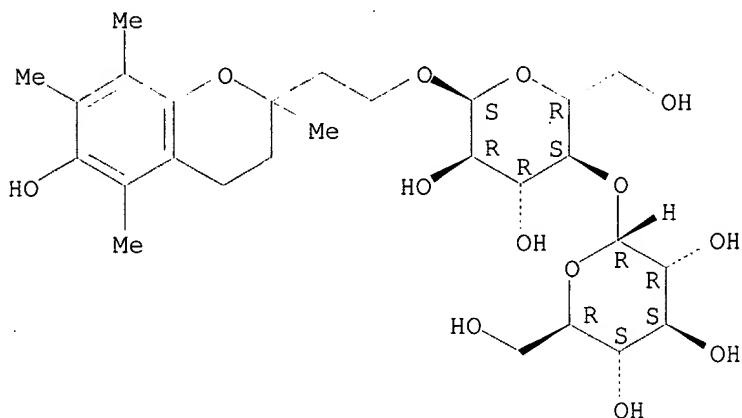
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 126:75190

L44 ANSWER 19 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 160455-98-1 REGISTRY  
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C27 H42 O13  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



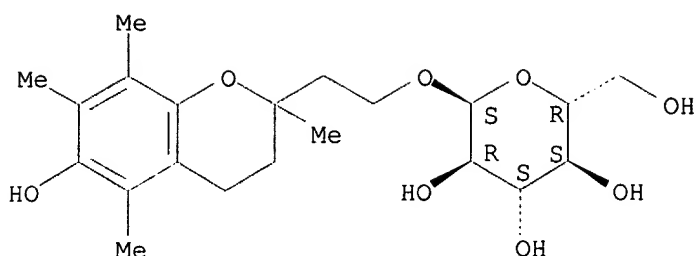
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 122:81889

L44 ANSWER 20 OF 22 REGISTRY COPYRIGHT 2003 ACS  
RN 160455-97-0 REGISTRY  
CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C21 H32 O8  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1962 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 128:267792

REFERENCE 2: 122:81889

L44 ANSWER 21 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 160455-96-9 REGISTRY

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

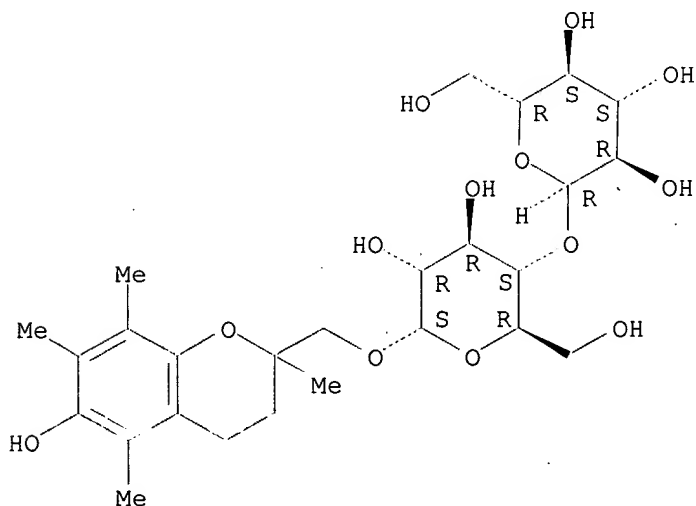
FS STEREOSEARCH

MF C26 H40 O13

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1962 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 136:10935

REFERENCE 2: 135:293712

REFERENCE 3: 135:274586

REFERENCE 4: 122:81889

L44 ANSWER 22 OF 22 REGISTRY COPYRIGHT 2003 ACS

RN 144088-87-9 REGISTRY

CN Galactaric acid, [3,4-dihydro-2,7,8-trimethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl] ester, 2-ester with 5,6-O-(1-methylethylidene)-L-ascorbic acid (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C43 H66 O14

CI IDS

SR CA

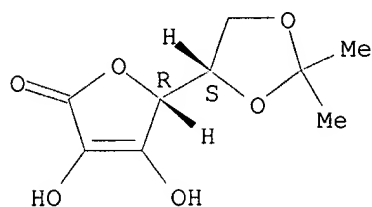
LC STN Files: CA, CAPLUS

CM 1

CRN 15042-01-0

CMF C9 H12 O6

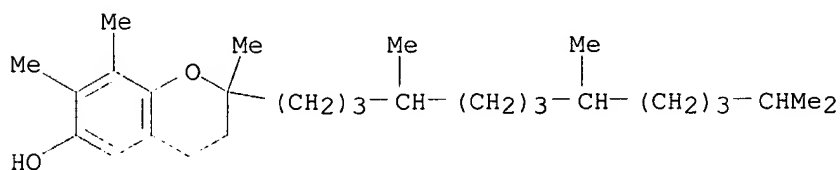
Absolute stereochemistry.



CM 2

CRN 7616-22-0

CMF C28 H48 O2

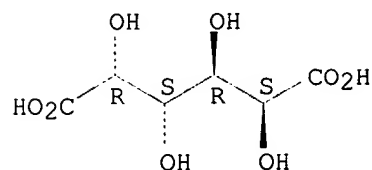


CM 3

CRN .526-99-8

CMF C6 H10 O8

Relative stereochemistry.



1 REFERENCES IN FILE CA (1962 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 117:198235

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 18:52:06 ON 22 JAN 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 22 Jan 2003 VOL 138 ISS 4  
FILE LAST UPDATED: 21 Jan 2003 (20030121/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all hitstr tot 143

L43 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS  
AN 2002:977190 HCAPLUS  
TI A Novel Vitamin E Derivative (TMG) Protects Against Gastric Mucosal Damage Induced by Ischemia and Reperfusion in Rats  
AU Ichikawa, Hiroshi; Yoshida, Norimasa; Takano, Hiroshisa; Ishikawa, Takeshi; Handa, Osamu; Takagi, Tomohisa; Naito, Yuji; Murase, Hironobu; Yoshikawa, Toshikazu  
CS Department of Medicine, Kyoto Prefectural University of Medicine, Kyoto, 602-8566, Japan  
SO Digestive Diseases and Sciences (2003), 48(1), 54-58  
CODEN: DDSCDJ; ISSN: 0163-2116  
PB Kluwer Academic/Plenum Publishers  
DT Journal  
LA English  
CC 1 (Pharmacology)  
AB The aim of the present study was to investigate the antioxidative effects of water-sol. vitamin E deriv., 2-(**.alpha.-d-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol** (TMG), on ischemia-reperfusion (I/R) -induced gastric mucosal injury in rats. Gastric ischemia was induced by applying a small clamp to the celiac artery and reoxygenation was produced by removal of the clamp. The area of gastric mucosal erosion, the concn. of thiobarbituric acid-reactive substances, and the myeloperoxidase activity in gastric mucosa significantly increased in I/R groups compared with those of sham-operated groups. These increases were significantly inhibited by pretreatment with TMG. The contents of both mucosal TNF-**.alpha.** and CINC-2.**beta.** in I/R groups were also increased compared with the levels of those in sham-operated groups. These increases of the inflammatory cytokines were significantly inhibited by the treatment with TMG. It is concluded that TMG inhibited lipid peroxidn. and reduced development of

the gastric mucosal inflammation induced by I/R in rats.

L43 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS  
AN 2002:344575 HCAPLUS  
DN 137:89990  
TI Redox reactions of tocopherol monoglucoside in aqueous solutions: a pulse radiolysis study  
AU Kapoor, Sudhir; Mukherjee, Tulsi; Kagiya, Tsutomu V.; Nair, Cherupally Krishnan K.  
CS Radiation Chemistry & Chemical Dynamics Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India  
SO Journal of Radiation Research (2002), 43(1), 99-106  
CODEN: JRARAX; ISSN: 0449-3060  
PB Japan Radiation Research Society  
DT Journal  
LA English  
CC 6-7 (General Biochemistry)  
Section cross-reference(s): 4, 18, 22, 30  
AB The reactions between tocopherol monoglucoside (TMG), a water-sol. vitamin-E deriv., with Br<sub>2</sub>.cntdot..hivin., N<sub>3</sub>.cntdot., (SCN)<sub>2</sub>.cntdot..hivin., NO<sub>2</sub>.cntdot., OH.cntdot. and various halogenated peroxy radicals were examd. using a pulse radiolysis technique. The results demonstrate that TMG forms a stable phenoxyl radical at pH > 6.8. The thus-formed phenoxyl radical shows pH-dependent decay kinetics and is disproportionated by 2nd order kinetics at pH 2.3. It was obsd. that the TMG reactivity towards a halogenated peroxy radical increases with the no. of halogen atoms at the carbon atom having a peroxy group. The reaction between the TMG phenoxyl radical and ascorbic acid was also examd. using a pulse radiolysis technique. The results indicate that the TMG phenoxyl radical is repaired by ascorbate. Kinetic studies indicate that TMG may act as an antioxidant to repair free-radical damage to some biol. important compds. The one-electron redn. potential for TMG was found to be 0.522 V .+-0.06 vs. NHE.  
ST redox reaction tocopherol monoglucoside aq pulse radiolysis  
IT Redox potential  
(biol.; redox reactions of tocopherol monoglucoside in aq. solns.)  
IT Peroxides, biological studies  
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)  
(haloperoxy radicals; redox reactions of tocopherol monoglucoside in aq. solns.)  
IT Reduction  
(one-electron; redox reactions of tocopherol monoglucoside in aq. solns.)  
IT Antioxidants  
Redox reaction  
Redox reaction kinetics  
(redox reactions of tocopherol monoglucoside in aq. solns.)  
IT Tocopherols  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)  
(redox reactions of tocopherol monoglucoside in aq. solns.)  
IT Radicals, biological studies  
RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)  
(redox reactions of tocopherol monoglucoside in aq. solns.)  
IT 2122-46-5, Phenoxyl radical  
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(redox reactions of tocopherol monoglucoside in aq. solns.)  
IT 50-81-7, Ascorbic acid, biological studies 187799-02-6  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(redox reactions of tocopherol monoglucoside in aq. solns.)

IT 3352-57-6, Hydroxyl, biological studies 10102-44-0, Nitrogen oxide (NO<sub>2</sub>), biological studies 12595-70-9, Bromide (Br<sub>2</sub>1-) 12596-60-0, biological studies 34504-17-1 69884-58-8 73761-31-6 73761-32-7 108083-10-9 108083-11-0 118449-53-9 131919-05-6 150716-79-3 442689-98-7

RL: BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(redox reactions of tocopherol monoglucoside in aq. solns.)

RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Borek, C; Proc Natl Acad Sci (USA) 1986, V83, P1490 HCAPLUS
- (2) Burton, G; Chem Res 1986, V19, P194 HCAPLUS
- (3) Burton, G; Protective agents in cancer 1983, P81 HCAPLUS
- (4) Davies, M; Biochem J 1988, V255, P513 HCAPLUS
- (5) Fielden, E; The Study of Fast Processes and Transient Species by Electron Pulse Radiolysis 1982, P49 HCAPLUS
- (6) Finkel, T; Curr Opin Cell Biol 1998, V10, P248 HCAPLUS
- (7) Glowe, P; Int J Radiat Oncol Biol Phys 1984, V10, P1781
- (8) Huie, R; Chem Biol Interact 1987, V62, P227 HCAPLUS
- (9) Huie, R; Int J Chem Kinetics 1986, V18, P1185 HCAPLUS
- (10) Kapoor, S; Int J Chem Kinetics 1992, V24, P1035 HCAPLUS
- (11) Land, E; Trans Faraday Soc 1967, V63, P1181 HCAPLUS
- (12) Leung, H; Biochim Biophys Acta 1981, V664, P266 HCAPLUS
- (13) Maisin, J; Int J Radiat Biol 1998, V73, P443 HCAPLUS
- (14) Maisin, J; Radiat Res 1993, V135, P332 HCAPLUS
- (15) Mukherjee, T; Atomic, Molecular and Cluster Physics 1997, P299 HCAPLUS
- (16) Murase, H; Free Radical Biology & Medicine 1998, V24, P217 HCAPLUS
- (17) Murase, H; Lipids 1997, V32, P73 HCAPLUS
- (18) Nair, C; J Radiat Res 1999, V40, P451
- (19) Nair, C; J Radiat Res 2001, V42, P21 HCAPLUS
- (20) Nemoto, S; Mol Cell Biol 2000, V20, P7311 HCAPLUS
- (21) Niki, E; Chem Lett 1982, P789 HCAPLUS
- (22) Niki, E; J Biol Chem 1984, V259, P4177 HCAPLUS
- (23) Nishikawa, T; Nature 2000, V404, P787 HCAPLUS
- (24) Packer, J; Nature 1979, V278, P737 HCAPLUS
- (25) Scholes, G; Br J Radiol 1983, V56, P221 HCAPLUS
- (26) Spinks, J; Introduction to Radiation Chemistry 1990, P243
- (27) Tannehill, S; Sem Oncol 1996, V22(Suppl 8), P69
- (28) Thomas, M; J Am Chem Soc 1989, V111, P3315 HCAPLUS
- (29) Tomassi, A; Chem Biol Interact 1983, V46, P353
- (30) Tsuchiya, J; Chem Soc Jpn 1983, V56, P229 HCAPLUS
- (31) Wardman, P; J Phys Chem Ref Data 1989, V18, P1637 HCAPLUS
- (32) Wasserman, T; Sem Oncol 1994, V21(Suppl 11), P21
- (33) Weiss, J; Environ Health Perspect 1997, V105, P1473 HCAPLUS
- (34) Yoshida, N; Antioxidants and Redox Signalling 1999, V1, P563

IT 187799-02-6

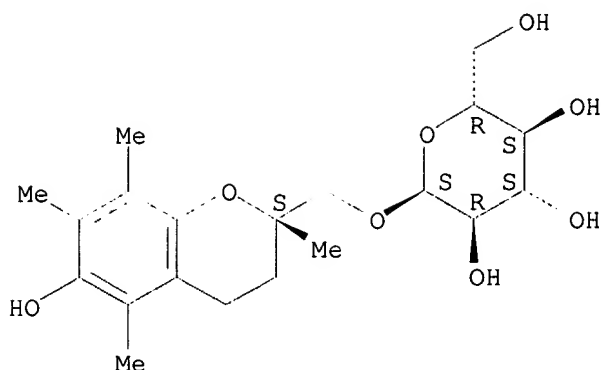
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(redox reactions of tocopherol monoglucoside in aq. solns.)

RN 187799-02-6 HCAPLUS

CN .alpha.-D-Glucopyranoside, [(2S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L43 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:263144 HCAPLUS  
 DN 137:257414  
 TI Inhibitory effect of a novel water-soluble vitamin E derivative on atherosclerosis in rabbits  
 AU Yoshida, Norimasa; Murase, Hironobu; Kunieda, Tsutomu; Toyokuni, Shinya; Tanaka, Tomoyuki; Terao, Junji; Naito, Yuji; Tanigawa, Toru; Yoshikawa, Toshikazu  
 CS First Department of Internal Medicine, Kyoto Prefectural University of Medicine, Kamigyo-ku, Kyoto, Kawaramachi-Hirokoji, 602-8566, Japan  
 SO Atherosclerosis (Shannon, Ireland) (2002), 162(1), 111-117  
 CODEN: ATHSBL; ISSN: 0021-9150  
 PB Elsevier Science Ireland Ltd.  
 DT Journal  
 LA English  
 CC 1-8 (Pharmacology)  
 AB A novel vitamin E deriv. that is freely sol. in water, 2-(**alpha.-d-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol (TMG)**, was evaluated for ability to inhibit development of atherosclerosis in Watanabe heritable hyperlipidemic (WHHL) rabbits or cholesterol-loaded New Zealand White rabbits. Although TMG rapidly entered the circulation blood after oral administration, the blood TMG concn. remained low, while neither TMG nor its metabolites appeared in the low-d. lipoprotein (LDL) fraction. TMG did not decrease serum total cholesterol and the various lipoprotein-assocd. cholesterol fractions (very LDL-, or high-d. lipoprotein- (HDL) cholesterol). TMG reduced the serum concn. of thiobarbituric acid-reactive substances (TBARS; an index of lipid peroxidn.) in cholesterol-loaded rabbits but not WHHL rabbits. Nonetheless, TMG inhibited aortic atherosclerosis as effectively as probucol in both models. Our results indicate that TMG opposes progression of atherosclerosis not only by preventing oxidn. of LDL, but also by presently unknown mechanisms. Even an antioxidant with no uptake by LDL apparently can inhibit development of atherosclerosis despite a very low serum concn.  
 ST vitamin E deriv lipid peroxidn atherosclerosis hyperlipidemia  
 IT **Antiarteriosclerotics**  
 (antiatherosclerotics; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)  
 IT Lipoproteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (high-d.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)  
 IT Lipids, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (hyperlipidemia; inhibitory effect of a vitamin E deriv. on

- atherosclerosis in rabbits)
- IT Antioxidants  
**Atherosclerosis**  
 (inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT Glycerides, biological studies  
 Phospholipids, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT Peroxidation  
 (lipid; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT Lipoproteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (low-d.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT Lipids, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (peroxidn.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT Lipoproteins  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (very-low-d.; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT 57-88-5, Cholesterol, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (blood; inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT 79907-49-6  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT 59-02-9, .alpha.-Tocopherol 23288-49-5, Probucol  
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study)  
 (inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)
- IT 160455-95-8  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; Lancet 1999, V347, P781
- (2) Boisvert, W; Immunol Res 2000, V21, P129 HCAPLUS
- (3) Carew, T; Proc Natl Acad Sci USA 1987, V84, P7725 HCAPLUS
- (4) Carr, A; Circ Res 2000, V87, P349 HCAPLUS
- (5) Cominacini, L; Free Radic Biol Med 1997, V22, P117 HCAPLUS
- (6) Cynshi, O; Proc Natl Acad Sci USA 1998, V95, P10123 HCAPLUS
- (7) Frei, B; Proc Natl Acad Sci USA 1998, V85, P9748
- (8) Frei, B; Proc Soc Exp Biol Med 1999, V222, P196 HCAPLUS
- (9) Gey, K; Am J Clin Nutr 1991, V53, P326s MEDLINE
- (10) Hatch, F; Adv Lipid Res 1968, V6, P1 HCAPLUS
- (11) Johansson, J; Arterioscler Thromb Vasc Biol 1995, V15, P1049 HCAPLUS
- (12) Kita, T; Proc Natl Acad Sci USA 1987, V84, P5928 HCAPLUS
- (13) Kleinveld, H; Arterioscler Thromb 1994, V14, P1386 HCAPLUS
- (14) Miiller, N; Am Heart J 1987, V113, P589
- (15) Murase, H; Free Radic Biol Med 1998, V24, P217 HCAPLUS
- (16) Murase, H; Lipids 1997, V32, P73 HCAPLUS
- (17) Ozer, N; Toxicology 2000, V148, P179 HCAPLUS
- (18) Peter, K; Thromb Haemost 1999, V82, P38
- (19) Sharma, N; Ann Nutr Metab 1999, V43, P181 HCAPLUS
- (20) Silva, E; Arch Biochem Biophys 1997, V349, P313
- (21) Steinberg, D; Adv Exp Med Biol 1995, V369, P39 HCAPLUS
- (22) Steinberg, D; Curr Opin Lipidol 2000, V11, P603 HCAPLUS
- (23) Stephens, N; Lancet 1996, V347, P781 HCAPLUS

- (24) Witting, P; J Clin Invest 1999, V104, P213 HCAPLUS  
 (25) Witztum, J; J Clin Invest 1991, V88, P1785 HCAPLUS  
 (26) Yagi, K; Methods Mol Biol 1998, V108, P101 HCAPLUS  
 (27) Yoshida, N; Antioxidants Redox Signaling 1999, V1, P555 HCAPLUS  
 (28) Yoshida, N; BioFactors 2000, V13, P279 HCAPLUS  
 (29) Yoshida, N; J Leukoc Biol 1999, V65, P757 HCAPLUS  
 (30) Yusuf, S; New Engl J Med 2000, V342, P154 MEDLINE

IT 160455-95-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

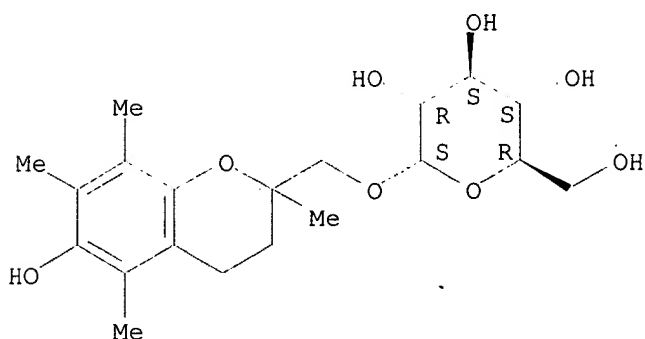
(Biological study); USES (Uses)

(inhibitory effect of a vitamin E deriv. on atherosclerosis in rabbits)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d all hitstr tot 142

L42 ANSWER 1 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:636449 HCAPLUS

DN 137:159008

TI Hair growth-stimulating agents containing chromanol glycosides

IN Fujii, Toshiaki; **Murase, Hironobu**; Kunieda, Tsutomu

PA CCI Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

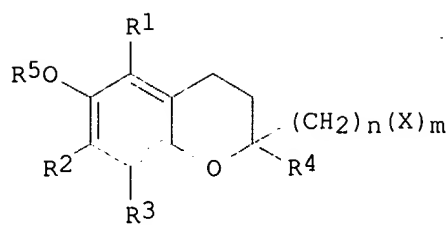
IC ICM A61K007-06

ICS A61K031-7042; A61P017-14

CC 62-3 (Essential Oils and Cosmetics)

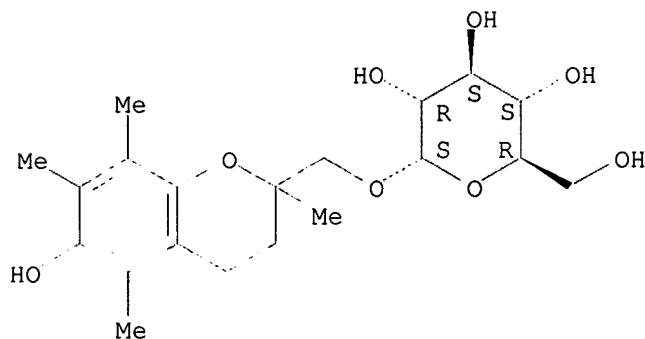
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002234823	A2	20020823	JP 2001-34025	20010209 <--
PRAI	JP 2001-34025		20010209 <--		
OS	MARPAT 137:159008				
GI					



- AB The invention relates to a hair growth-stimulating agent having sufficient effect with small amt. and providing improved use feel, wherein the agent contg. chromanol glycoside I (R1, R2, R3, R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide residue, oligosaccharide residue, providing the H atom of the HO group of saccharide residue may be substituted by lower alkyl or lower acyl; n = 0-6; m = 1-6). A hair tonic contg. 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol 1, glycerin 2, ethanol 90 g, and water balance to 100 mL was prepd.
- ST chromanol glycoside hair growth stimulant
- IT Hair preparations  
(growth stimulants; hair growth-stimulating agents contg. chromanol glycosides)
- IT Glycosides  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair growth-stimulating agents contg. chromanol glycosides)
- IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair growth-stimulating agents contg. chromanol glycosides)
- IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(hair growth-stimulating agents contg. chromanol glycosides)
- RN 160455-95-8 HCAPLUS
- CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



TI Stabilization of radiopharmaceutical compositions using hydrophilic thioethers and hydrophilic 6-hydroxy chromans

IN Cyr, John E.; Pearson, Daniel A.

PA Diatide, Inc., USA

SO PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K051-12

ICS A61K103-10

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 8

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002060491	A2	20020808	WO 2001-US50423	20011024 <--
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2000-694992	A1	20001024 <--		
	US 2000-695360	A1	20001024 <--		
	US 2000-695494	A1	20001024 <--		
AB	Radiopharmaceutical compns. which are stabilized by addn. of a hydrophilic thioether, a hydrophilic 6-hydroxy-chroman deriv., or a mixt. of a hydrophilic thioether and a hydrophilic 6-hydroxy-chroman deriv. are described. Several examples are provided demonstrating the stabilizing effects of L-methionine, Trolox, or a combination of the two on lyophilized kit preps. contg. 99mTc-labeled depreotide, benzodiazepinedione deriv., a glycoprotein IIb/IIa receptor-binding peptide, a peptide chelator, a bisamine bithiol chelator, or other peptides.				
ST	technetium 99m radiopharmaceutical stabilization methionine Trolox; thioether hydroxychroman technetium 99m radiopharmaceutical stabilization				
IT	Immunoglobulins RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (fragments, radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)				
IT	Antibodies Growth factors, animal Hormones, animal, biological studies Peptides, biological studies Steroids, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)				
IT	Antibiotics (receptor-binding, radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)				
IT	Disaccharides Lipids, biological studies Monosaccharides Nucleic acids Oligosaccharides, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (receptor-binding, radionuclide targeting moiety; stabilization of				

- radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT Chelating agents  
Drug delivery systems  
Drug delivery systems  
Radiopharmaceuticals  
Stability  
Stabilizing agents  
Test kits  
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT Radionuclides, biological studies  
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT Thioethers  
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(stabilizers; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT Integrins  
RL: MSC (Miscellaneous)  
(.alpha.IIb.beta.3, benzodiazepines binding; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT 12794-10-4D, Benzodiazepine, derivs.  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(receptor-binding, radionuclide targeting moiety; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT 490-79-9, Gentisic acid 14133-76-7D, Technetium 99, compds. labeled with, biological studies 445311-85-3D, radiolabeled 445311-86-4D, radiolabeled 445311-87-5D, 99mTc-labeled 445311-88-6D, 99mTc-labeled  
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT 23288-60-0, Sodium pertechnetate-99Tc  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)
- IT 10043-66-0D, Iodine 131, compds. labeled with, biological studies  
10098-91-6D, Yttrium 90, compds. labeled with, biological studies  
13967-64-1D, Dysprosium 165, compds. labeled with, biological studies  
13967-65-2D, Holmium 166, compds. labeled with, biological studies  
13982-22-4D, Gallium 72, compds. labeled with, biological studies  
14041-42-0D, Gadolinium 159, compds. labeled with, biological studies  
14041-44-2D, Ytterbium 175, compds. labeled with, biological studies  
14158-31-7D, Iodine 125, compds. labeled with, biological studies  
14265-75-9D, Lutetium 177, compds. labeled with, biological studies  
14391-96-9D, Scandium 47, compds. labeled with, biological studies  
14913-49-6D, Bismuth 212, compds. labeled with, biological studies  
15715-08-9D, Iodine 123, compds. labeled with, biological studies  
15750-15-9D, Indium 111, compds. labeled with, biological studies  
15755-39-2D, Astatine 211, compds. labeled with, biological studies  
15757-14-9D, Gallium 68, compds. labeled with, biological studies  
15757-86-5D, Copper 67, compds. labeled with, biological studies  
15766-00-4D, Samarium 153, compds. labeled with, biological studies  
15776-20-2D, Bismuth 213, compds. labeled with, biological studies  
158615-68-0D, radiolabeled 161889-00-5D, radiolabeled 161889-01-6D, radiolabeled 161889-11-8D, radiolabeled 161889-14-1D, radiolabeled 161889-35-6D, radiolabeled 161889-40-3D, radiolabeled 161889-41-4D,

radiolabeled 161889-42-5D, radiolabeled 161889-44-7D, radiolabeled  
 161889-45-8D, radiolabeled 161889-46-9D, radiolabeled 161889-49-2D,  
 radiolabeled 161982-26-9D, radiolabeled 161982-27-0D, radiolabeled  
 161982-33-8D, radiolabeled 161982-53-2D, radiolabeled 161982-55-4D,  
 radiolabeled 161982-58-7D, radiolabeled 161982-62-3D, radiolabeled  
 161982-69-0D, radiolabeled 174350-31-3D, radiolabeled 174350-32-4D,  
 radiolabeled 174350-33-5D, radiolabeled 174350-35-7D, radiolabeled  
 174350-37-9D, radiolabeled 174350-38-0D, radiolabeled 174350-42-6D,  
 radiolabeled 174350-43-7D, radiolabeled 174350-47-1D, radiolabeled  
 174350-48-2D, radiolabeled 174350-51-7D, radiolabeled 174350-52-8D,  
 radiolabeled 174350-53-9D, radiolabeled 174350-56-2D, radiolabeled  
 174350-62-0D, radiolabeled 174350-64-2D, radiolabeled 174900-23-3D,  
 radiolabeled 177932-82-0D, radiolabeled 217804-02-9D, radiolabeled  
 217804-03-0D, radiolabeled 217804-04-1D, radiolabeled 259746-53-7D,  
 radiolabeled 345259-42-9D, radiolabeled 345259-52-1D, radiolabeled  
 345259-54-3D, radiolabeled 345259-57-6D, radiolabeled 345259-59-8D,  
 radiolabeled 345259-60-1D, radiolabeled 345259-61-2D, radiolabeled  
 345259-62-3D, radiolabeled 345259-63-4D, radiolabeled 345259-64-5D,  
 radiolabeled 345259-68-9D, radiolabeled 345259-69-0D, radiolabeled  
 345259-71-4D, radiolabeled 345259-73-6D, radiolabeled 345259-74-7D,  
 radiolabeled 345259-75-8D, radiolabeled 345259-84-9D, radiolabeled  
 345259-85-0D, radiolabeled 345260-19-7D, radiolabeled 345260-21-1D,  
 radiolabeled 445311-33-1D, radiolabeled 445311-34-2D, radiolabeled  
 445311-35-3D, radiolabeled 445311-36-4D, radiolabeled 445311-38-6D,  
 radiolabeled 445311-39-7D, radiolabeled 445311-40-0D, radiolabeled  
 445311-41-1D, radiolabeled 445311-42-2D, radiolabeled 445311-43-3D,  
 radiolabeled 445311-44-4D, radiolabeled 445311-45-5D, radiolabeled  
 445311-46-6D, radiolabeled 445311-47-7D, radiolabeled 445311-48-8D,  
 radiolabeled 445311-49-9D, radiolabeled 445311-50-2D, radiolabeled  
 445311-51-3D, radiolabeled 445311-52-4D, radiolabeled 445311-53-5D,  
 radiolabeled 445311-54-6D, radiolabeled 445311-55-7D, radiolabeled  
 445311-56-8D, radiolabeled 445311-57-9D, radiolabeled 445311-58-0D,  
 radiolabeled 445311-59-1D, radiolabeled 445311-60-4D, radiolabeled  
 445311-61-5D, radiolabeled 445311-62-6D, radiolabeled 445311-63-7D,  
 radiolabeled 445311-64-8D, radiolabeled 445311-65-9D, radiolabeled  
 445311-66-0D, radiolabeled 445311-67-1D, radiolabeled 445311-68-2D,  
 radiolabeled 445311-69-3D, radiolabeled 445311-70-6D, radiolabeled  
 445311-71-7D, radiolabeled 445311-72-8D, radiolabeled 445311-73-9D,  
 radiolabeled 445311-74-0D, radiolabeled 445311-75-1D, radiolabeled  
 445311-76-2D, radiolabeled 445311-77-3D, radiolabeled 445311-78-4D,  
 radiolabeled 445311-80-8D, radiolabeled 445311-81-9D, radiolabeled  
 445311-82-0D, radiolabeled 445311-83-1D, radiolabeled 445311-84-2D,  
 radiolabeled 445484-05-9D, radiolabeled 445484-06-0D, radiolabeled  
 445484-08-2D, radiolabeled 445484-10-6D, radiolabeled 445484-13-9D,  
 radiolabeled 445484-16-2D, radiolabeled 445484-23-1D, radiolabeled  
 445484-24-2D, radiolabeled 445484-32-2D, radiolabeled 445484-33-3D,  
 radiolabeled 446032-90-2D, radiolabeled 446033-25-6D, radiolabeled  
 446033-27-8D, radiolabeled 446033-29-0D, radiolabeled 446033-30-3D,  
 radiolabeled 446033-32-5D, radiolabeled 446033-35-8D, radiolabeled  
 446033-39-2D, radiolabeled 446033-42-7D, radiolabeled 446033-48-3D,  
 radiolabeled 446033-54-1D, radiolabeled 446033-62-1D, radiolabeled  
 446037-77-0D, radiolabeled

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT 63-68-3, L-Methionine, biological studies 348-67-4, D-Methionine  
 2899-37-8, L-Methioninol 22551-26-4, 3-Methylthio-1,2-propanediol  
 36489-03-9, 2-(Ethylthio)ethylamine 53188-07-1, Trolox

RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stabilizer; stabilization of radiopharmaceutical compns. using hydrophilic thioethers and hydrophilic hydroxychromans)

IT 535-32-0, D-Ethionine 1187-84-4, S-Methyl-L-cysteine 3268-49-3,

3-(Methylthio)propionaldehyde 4378-14-7, Buthionine 5271-38-5,  
 2-(Methylthio)ethanol 13073-35-3, L-Ethionine 13532-18-8, Methyl  
 3-(methylthio)propionate 66255-16-1, S-Methyl-D-cysteine 87206-44-8,  
 D-Methioninol 445311-29-5 445311-30-8 **445311-31-9**  
 445311-32-0

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(stabilizer; stabilization of radiopharmaceutical compns. using  
 hydrophilic thioethers and hydrophilic hydroxychromans)

IT 5614-78-8D, 6-Hydroxychroman, derivs.

RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic  
 use); BIOL (Biological study); USES (Uses)

(stabilizers; stabilization of radiopharmaceutical compns. using  
 hydrophilic thioethers and hydrophilic hydroxychromans)

IT 158615-68-0 174350-32-4 174350-33-5 174350-34-6 445482-69-9  
 445482-70-2 445482-71-3 445482-72-4 445482-73-5 445482-74-6  
 445508-67-8

RL: PRP (Properties)

(unclaimed sequence; stabilization of radiopharmaceutical compns. using  
 hydrophilic thioethers and hydrophilic 6-hydroxy chromans)

IT **445311-31-9**

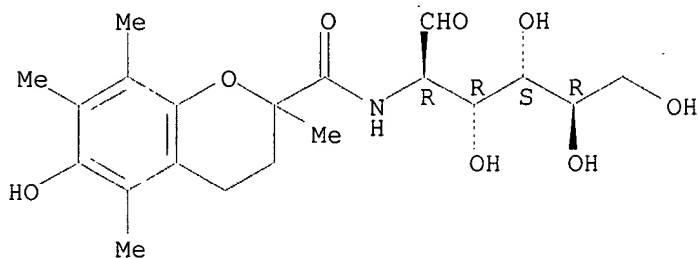
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

(stabilizer; stabilization of radiopharmaceutical compns. using  
 hydrophilic thioethers and hydrophilic hydroxychromans)

RN 445311-31-9 HCAPLUS

CN D-Glucose, 2-deoxy-2-[[ (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-  
 benzopyran-2-yl)carbonyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 3 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:347346 HCAPLUS

DN 136:335241

TI Erythrocyte deformation-improving agents containing chromanol glycosides

IN **Murase, Hironobu**; Kunieda, Tsutomu

PA CCI Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K031-7048

ICS A61P001-02; A61P007-00; A61P009-00; A61P009-10; A61P009-12;  
 A61P017-00; A61P017-02; C07H015-26

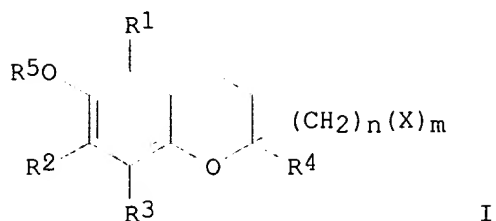
CC 1-8 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

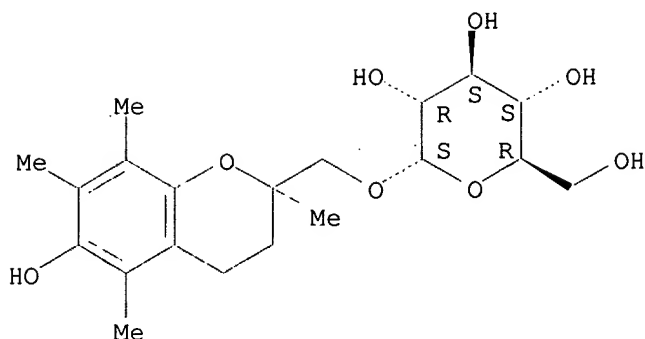
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002128679	A2	20020509	JP 2000-317077	20001017 <--
PRAI	JP 2000-317077		20001017	<--	

OS MARPAT 136:335241  
GI



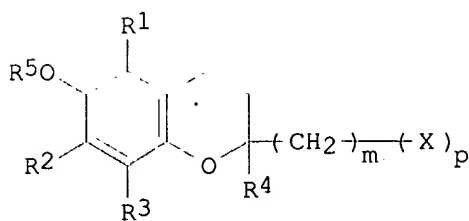
- AB The agents, useful for treatment of blood circulation disorders, contain chromanol glycosides I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = sugar residue; n = 0-6; m = 1-6). An erythrocyte dispersion contg. I (R1-R4 = Me, R5 = H, X = .alpha.-D-glucopyranosyl, n = m = 1) showed microchannel array passing time 25.2 s, vs. 37.8 s, for control.
- ST erythrocyte deformation improvement chromanol glycoside; blood circulation improvement chromanol glycoside
- IT **Antiartherosclerotics**  
(antiatherosclerotics; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Brain, disease  
(cerebrovascular, sequelae, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Periodontium  
(disease, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Circulation  
(disorder, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Antihypertensives  
Erythrocyte  
(erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Brain, disease  
(infarction, sequelae, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Circulation  
(peripheral, disorder, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT Brain, disease  
(stroke, sequelae, treatment; erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(erythrocyte deformation-improving agents contg. chromanol glycosides)
- IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(erythrocyte deformation-improving agents contg. chromanol glycosides)
- RN 160455-95-8 HCAPLUS
- CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 4 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:244630 HCAPLUS  
 DN 136:284177  
 TI Sunscreens containing chromanol glycosides and UV absorbers  
 IN Sato, Saori; Ishida, Misaki; **Murase, Hironobu**  
 PA NOF Corporation, Japan; CCI Corp.  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-42  
 ICS A61K007-035; A61K007-06  
 CC 62-4 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002097127	A2	20020402	JP 2000-282637	20000918 <--
PRAI	JP 2000-282637		20000918	<--	
OS	MARPAT 136:284177				
GI					



I

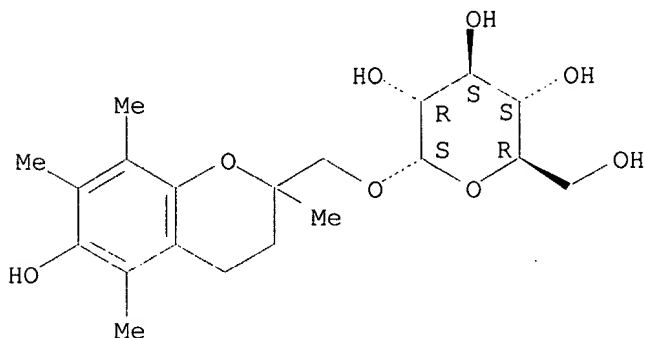
AB Sunscreens contain 0.001-20 wt.% chromanol glycosides I (R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = monosaccharide or oligosaccharide residue; m = 0-6; p = 1-10) and 0.1-30 wt.% UV absorbers. The sunscreens show long-lasting UV blocking effect, water resistance, storage stability, etc. A sunscreen emulsion was prepd. from I (R1-R4 = Me, R5 = H, X = glucosyl, m = p = 1) (prepn. given) 1, Parsol 1789 0.7, oils 7, emulsifiers 1.8, other additives 11.5, and H2O to 100 wt.%.

ST sunscreen chromanol glycoside UV absorber  
 IT Sunscreens  
 UV stabilizers  
 (sunscreens contg. chromanol glycosides and UV absorbers)

IT 79907-49-6DP, glycosides 160455-95-8DP, glucosides 160455-95-8P  
 RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological

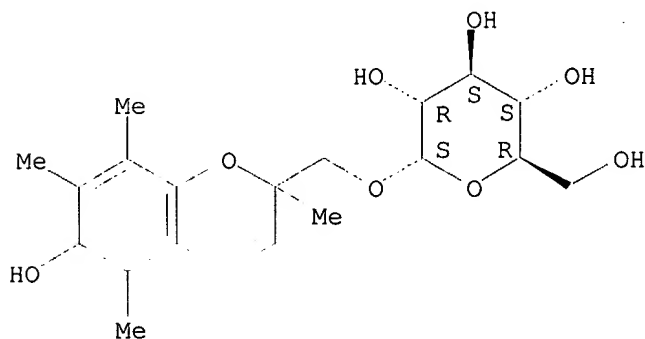
study); PREP (Preparation); USES (Uses)  
 (sunscreens contg. chromanol glycosides and UV absorbers)  
 IT 131-57-7, Uvinul M 40 5466-77-3, Parsol MCX 70356-09-1, Parsol 1789  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (sunscreens contg. chromanol glycosides and UV absorbers)  
 IT 10016-20-3, .alpha.-Cyclodextrin 79907-49-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (sunscreens contg. chromanol glycosides prepd. from)  
 IT 160455-95-8DP, glucosides 160455-95-8P  
 RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 (sunscreens contg. chromanol glycosides and UV absorbers)  
 RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-  
 benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-  
 benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



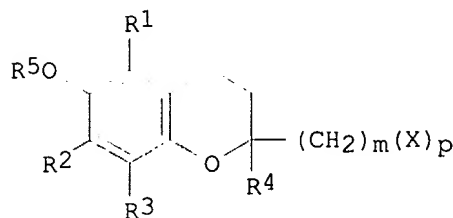
L42 ANSWER 5 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:244629 HCAPLUS  
 DN 136:299474  
 TI Sunscreens containing chromanol glycosides and UV scattering agents  
 IN Ishida, Misaki; Sato, Saori; **Murase, Hironoru**  
 PA NOF Corporation, Japan; CCC Corp.  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese

IC ICM A61K007-42

CC 62-4 (Essential Oils and Cosmetics)

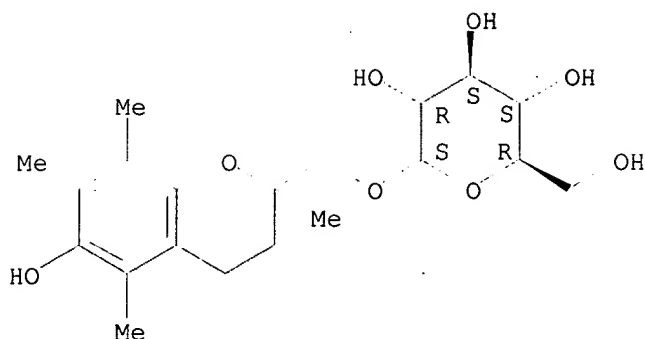
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002097126	A2	20020402	JP 2000-282638	20000918 <--
PRAI	JP 2000-282638		20000918	<--	
OS	MARPAT 136:299474				
GI					



- AB Sunscreens contain 0.001-20 wt.% chromanol glycosides I (R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 acyl; X = monosaccharide or oligosaccharide residue; m = 0-6; p = 1-10) and 0.1-30 wt.% UV scattering agents. The sunscreens show no stickiness, good durability, and are free from whitening after application. A bilayer sunscreen was prepd. from I (R1-R4 = Me, R5 = H, X = glucosyl, m = p = 1) (prepn. given) 1, MT 500SA (alumina/silica-treated TiO2 fine particle) 7, polyoxyethylene hydrogenated castor oil deriv. 0.1, EtOH 15, and H2O to 100 wt.%.
- ST sunscreen chromanol glycoside UV scattering agent
- IT Sunscreens  
(sunscreens contg. chromanol glycosides and UV scattering agents)
- IT 1314-13-2, Zinc oxide, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(MZ 500; sunscreens contg. chromanol glycosides and UV scattering agents)
- IT 13463-67-7, Titanium oxide, biological studies  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(SPP-M; sunscreens contg. chromanol glycosides and UV scattering agents)
- IT 79907-49-6DP, glycosides **160455-95-8DP**, glucosides **160455-95-8P**  
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(sunscreens contg. chromanol glycosides and UV scattering agents)
- IT 406684-41-1, ZNO 350SI4  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(sunscreens contg. chromanol glycosides and UV scattering agents)
- IT 9004-53-9, Pinedex 1 79907-49-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(sunscreens contg. chromanol glycosides prepd. from)
- IT **160455-95-8DP**, glucosides **160455-95-8P**  
RL: BPN (Biosynthetic preparation); COS (Cosmetic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(sunscreens contg. chromanol glycosides and UV scattering agents)
- RN 160455-95-8 HCAPLUS
- CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

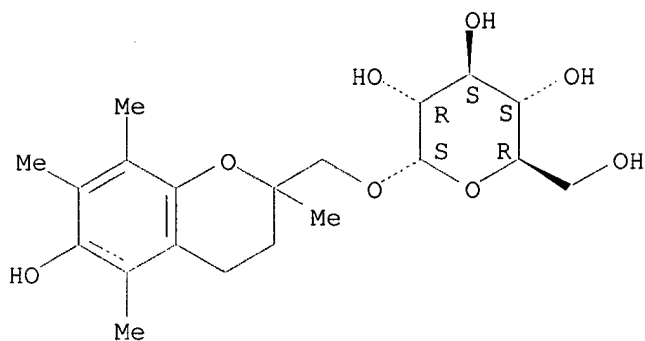
Absolute stereochemistry.



RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 6 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:129052 HCAPLUS

DN 136:189097

TI Skin cosmetics containing chromanol glycosides and oil-soluble antioxidants

IN Sato, Saori; Ishida, Misaki; Murase, Hiroyoshi

PA NOF Corporation, Japan; CCI Corp.

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

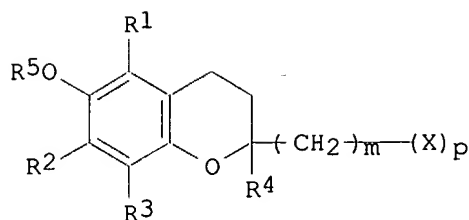
IC ICM A61K007-00

ICS A61K007-48

CC 62-4 (Essential Oils and Cosmetics)

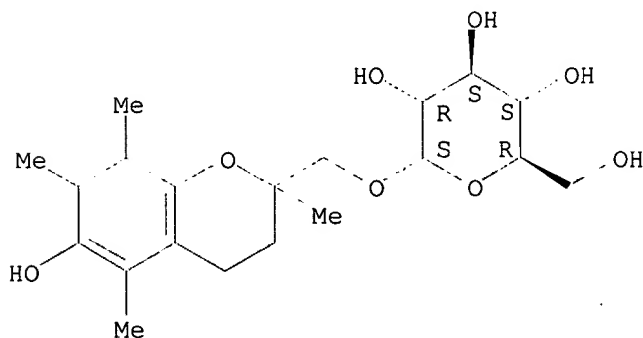
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002053422	A2	20020219	JP 2000-238434	20000807 <--
PRAI	JP 2000-238434		20000807 <--		
OS	MARPAT 136:189097				
GI					



- AB The cosmetics contain 0.001-20 wt.% chromanol glycosides I [R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = (acyl-substituted) saccharide residue; m = 0-6; p = 1-10] and 0.001-10 wt.% oil-sol. antioxidants. The cosmetics are storage-stable and show skin-conditioning and antiwrinkle effect. An oil-in-water emulsion contg. I (R1-R4 = Me, R5 = H, X = glucose residue, m = p = 1) and d-.delta.-tocopherol was formulated.
- ST skin cosmetic chromanol glycoside antioxidant; tocopherol chromanol glucoside skin cosmetic
- IT Cosmetics  
(conditioners; skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)
- IT Antioxidants  
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)
- IT 79-81-2, Retinol palmitate 119-13-1 127-47-9, Retinol acetate 52225-20-4, dl-.alpha.-Tocopherol acetate 251562-63-7, dl-.delta.-Tocopherol  
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
(antioxidant; skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)
- IT **160455-95-8P 362480-96-4P 362480-97-5P**  
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)
- IT 9004-53-9, Pinedex 1 79907-49-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)
- IT **160455-95-8P 362480-96-4P 362480-97-5P**  
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(skin cosmetics contg. chromanol glycosides and oil-sol. antioxidants)
- RN 160455-95-8 HCAPLUS
- CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

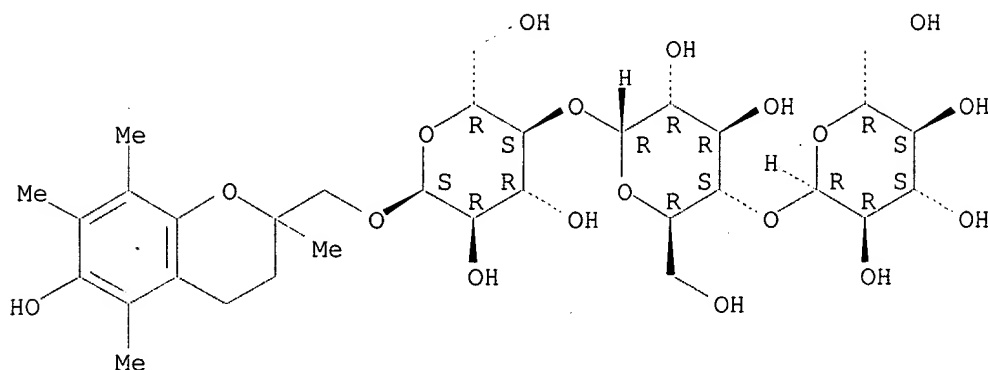
Absolute stereochemistry.



RN 362480-96-4 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

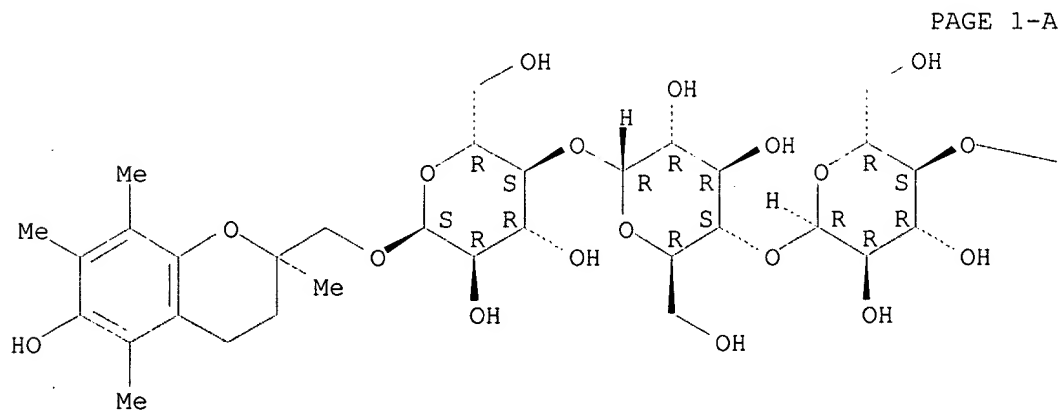
Absolute stereochemistry.



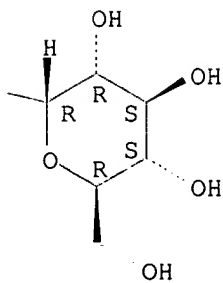
RN 362480-97-5 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



PAGE 1-B



L42 ANSWER 7 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2002:18308 HCAPLUS  
 DN 136:212827  
 TI Effect of a water soluble derivative of .alpha.-tocopherol on radiation response of *Saccharomyces cerevisiae*  
 AU Singh, Rakesh K.; Verma, Naresh C.; Kagiya, V. T.  
 CS Radiation Biology Division, Bhabha Atomic Research Centre, Mumbai, 400 085, India  
 SO Indian Journal of Biochemistry & Biophysics (2001), 38(6), 399-405  
 CODEN: IJBBBQ; ISSN: 0301-1208  
 PB National Institute of Science Communication  
 DT Journal  
 LA English  
 CC 8-3 (Radiation Biochemistry)  
 AB The radioprotection conferred by a highly water sol. glucose deriv. of .alpha.-tocopherol, namely, 2-(.alpha.-D-glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol (TMG) in *Saccharomyces cerevisiae* was studied. Cells grown in std. YEPD-agar medium and irradiated in the presence of TMG showed a concn. dependent higher survival up to 10 mM of TMG in comparison to cells irradiated in distd. water. Treatment of TMG to cells given either before or immediately after irradiation but not during irradiation, had no effect on their radiation response. *S. cerevisiae* strain LP1383 (rad52) which is defective in recombination repair showed enhanced radioresistance only when subjected to irradiation in presence of TMG. Cells of rad52 strain grown in the medium containing TMG showed a radiation response similar to that of cells grown in the medium without TMG. The nature of TMG dependent enhanced radioresistance was studied by scoring the mutations in the strain D-7, which behaved like wild type strain in complete medium, at trp and ilv loci. Our study indicated that TMG confers radioresistance in *S. cerevisiae* possibly by two mechanisms viz. (i), by eliminating radiation induced reactive free radicals when the irradiation is carried out in the presence of TMG and (ii), by activating an error-prone repair process involving RAD52 gene, when the cells are grown in the medium containing TMG.  
 ST tocopherol deriv radioprotection *Saccharomyces* RAD52 gene  
 IT Gene, microbial  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (RAD52; effect of .alpha.-tocopherol deriv. on radiation response of *Saccharomyces cerevisiae*)  
 IT Radioprotectants  
 Saccharomyces cerevisiae  
 (effect of .alpha.-tocopherol deriv. on radiation response of *Saccharomyces cerevisiae*)  
 IT Gamma ray  
 (irradiation; effect of .alpha.-tocopherol deriv. on radiation response of *Saccharomyces cerevisiae*)  
 IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (effect of .alpha.-tocopherol deriv. on radiation response of *Saccharomyces cerevisiae*)  
 RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) Boreham, D; Radiat Res 1991, V128, P19 HCAPLUS  
 (2) Chow, C; Free Rad Biol Med 1991, V11, P215 HCAPLUS  
 (3) Dutta, K; J Gen Appl Microbiol 1996, V42, P27 HCAPLUS  
 (4) Fomenko, L; Izv Akad Nauk Ser Biol 1997, V4, P419  
 (5) Friedberg, E; Microbiol Rev 1998, V52, P70

- (6) Gebhart, E; Mutat Res 1985, V149, P83 HCAPLUS
- (7) Kalinina, L; Genetika 1979, V15, P1880 HCAPLUS
- (8) Kralli, A; Brit J Dermatol 1987, V116, P761 MEDLINE
- (9) Minkova, M; Acta Physiol Pharmacol Bul 1990, V16, P31 HCAPLUS
- (10) Muga, J; Mol Gen Genet 1985, V200, P313
- (11) Murase, H; Lipids 1997, V32, P73 HCAPLUS
- (12) Odagiri, Y; J Nutr 1992, V122, P1553 HCAPLUS
- (13) Paranich, A; Fiziol Zh 1993, V39, P89 HCAPLUS
- (14) Paranich, A; Radiats Biol Radioecol 1993, V33, P653 HCAPLUS
- (15) Paranich, A; Radiobiologia 1992, V32, P743 HCAPLUS
- (16) Radner, B; Cancer Lett 1986, V32, P25 HCAPLUS
- (17) Rose, M; Methods in Yeast Genetics, A Laboratory Manual 1990, P176
- (18) Samoilov, A; Eksp Klin Farmakol 1992, V455, P42
- (19) Sheng, S; J Biol Chem 1993, V268, P4752 HCAPLUS
- (20) Shiraishi, N; Physiol Chem Phys Med NMR 1985, V17, P243 HCAPLUS
- (21) Srinivasan, V; Int J Radiat Oncol Biol Phys 1992, V23, P841 HCAPLUS
- (22) Sugiyama, M; Photochem Photobiol 1992, V56, P31 HCAPLUS
- (23) Zimmerman, F; Mutat Res 1975, V28, P381

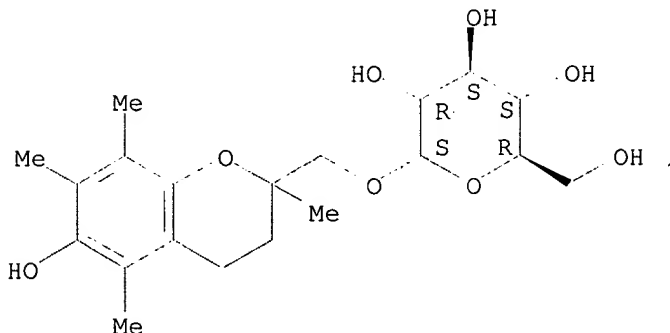
IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effect of .alpha.-tocopherol deriv. on radiation response of  
Saccharomyces cerevisiae)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 8 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:874356 HCAPLUS

DN 136:10935

TI Cosmetics containing chromanol glycosides and anti-inflammatories

IN Ishida, Misaki; Sato, Saori; Murase, Hiroyoshi

PA NOF Corporation, Japan; CCI Corp.

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-48

ICS A61K007-00; A61K031-015; A61K031-19; A61K031-4166; A61K031-704;  
A61K031-7048; A61K045-00; A61P017-16; A61P029-00; C07H015-256;  
C07H015-26; C07H017-06

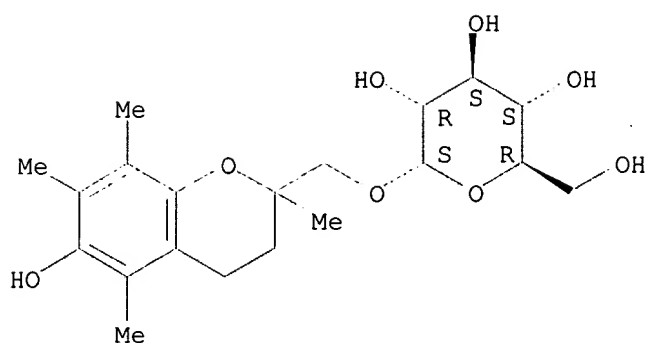
CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI JP 2001335456 A2 20011204 JP 2000-152087 20000523 <--  
 PRAI JP 2000-152087 20000523 <--  
 OS MARPAT 136:10935  
 AB This invention relates to antiwrinkle, skin-moisturizing cosmetics comprising (1) 0.001-20 % chromanol glycosides and (2) 0.01-10 % anti-inflammatories selected from the group consisting of glycyrrhizinic acid, glycyrrhetic acid, azulene, allantoin, and derivs. thereof. Chromanol glucosides were prepd. by treating 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol with dextrin in the presence of cyclomaltodextrin glucanotransferase. A cream was formulated contg. 0.1 % chromanol monoglucoside and 0.1 % dipotassium glycyrrhizinate with other conventional ingredients.  
 ST antiwrinkle moisturizer chromanol glycoside antiinflammatory  
 IT Anti-inflammatory agents  
 (cosmetics contg. chromanol glycosides and anti-inflammatories)  
 IT Cosmetics  
 (moisturizers; cosmetics contg. chromanol glycosides and anti-inflammatories)  
 IT Cosmetics  
 (wrinkle-preventing; cosmetics contg. chromanol glycosides and anti-inflammatories)  
 IT 97-59-6, Allantoin 275-51-4, Azulene 471-53-4, Glycyrrhetic acid 1405-86-3, Glycyrrhizinic acid 53956-04-0, Ammonium glycyrrhizinate 68797-35-3, Dipotassium glycyrrhizinate 106388-01-6  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (cosmetics contg. chromanol glycosides and anti-inflammatories)  
 IT 160455-95-8P 160455-96-9P 362480-96-4P  
 362480-97-5P 362480-98-6P 362481-00-3P  
 364783-92-6P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of chromanol glycosides for cosmetic use)  
 IT 9030-09-5, Cyclomaltodextrin glucanotransferase  
 RL: CAT (Catalyst use); USES (Uses)  
 (prepn. of chromanol glycosides for cosmetic use)  
 IT 9004-53-9, Dextrin 79907-49-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of chromanol glycosides for cosmetic use)  
 IT 160455-95-8P 160455-96-9P 362480-96-4P  
 362480-97-5P 362480-98-6P 362481-00-3P  
 364783-92-6P  
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of chromanol glycosides for cosmetic use)  
 RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

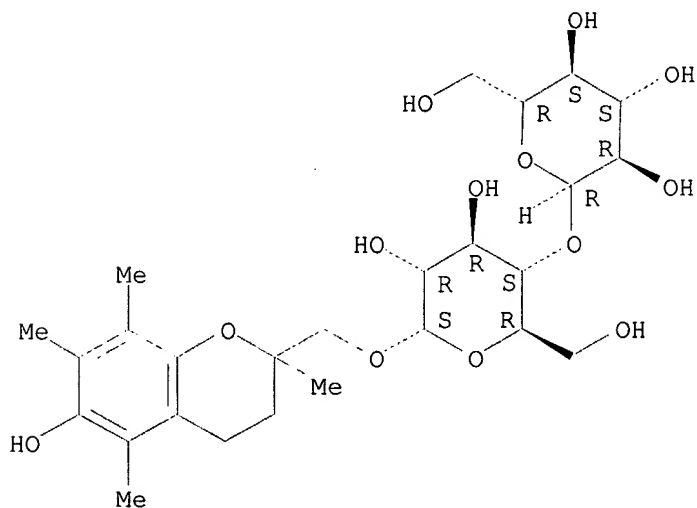
Absolute stereochemistry.



RN 160455-96-9 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

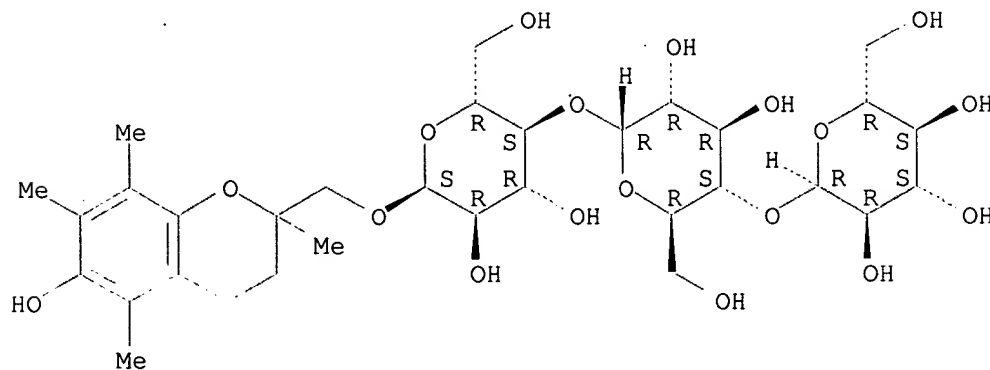
Absolute stereochemistry.



RN 362480-96-4 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

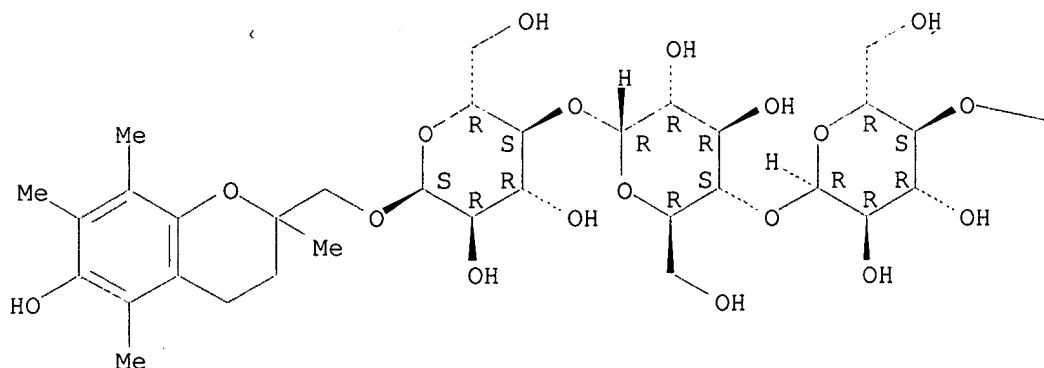


RN 362480-97-5 HCAPLUS

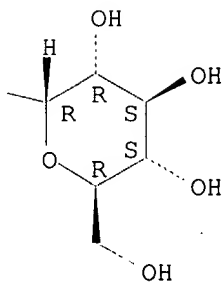
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

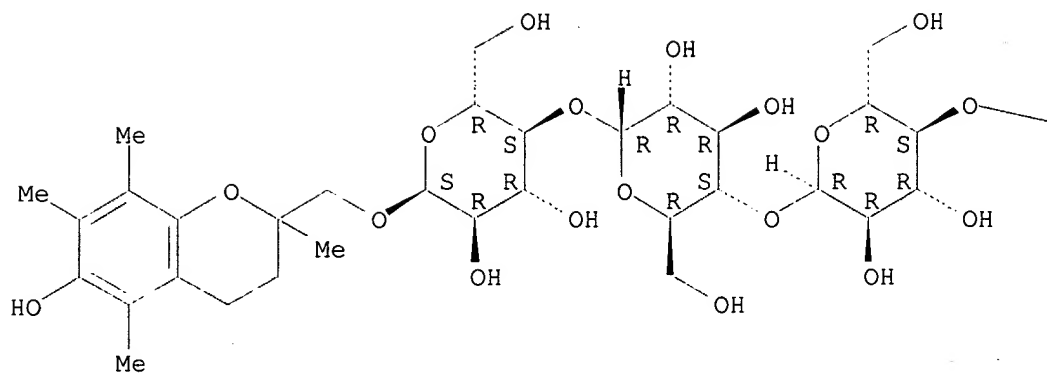


RN 362480-98-6 HCAPLUS

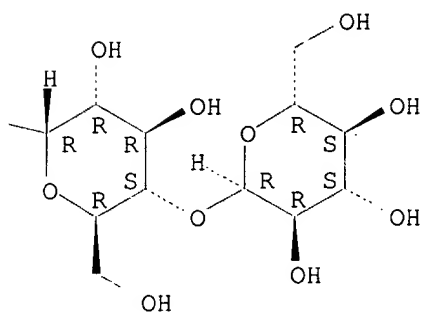
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

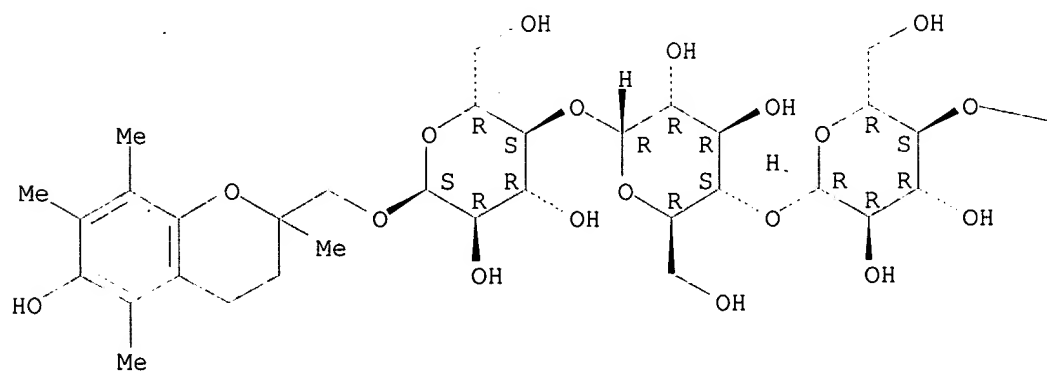


RN 362481-00-3 HCAPLUS

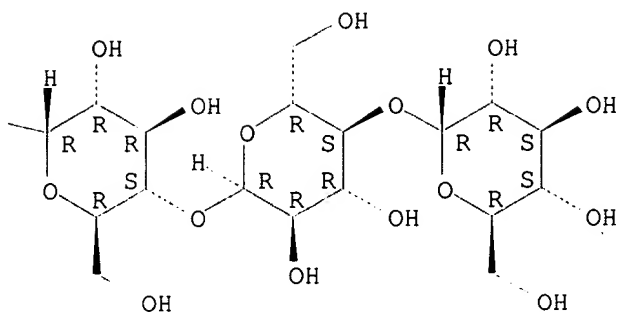
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

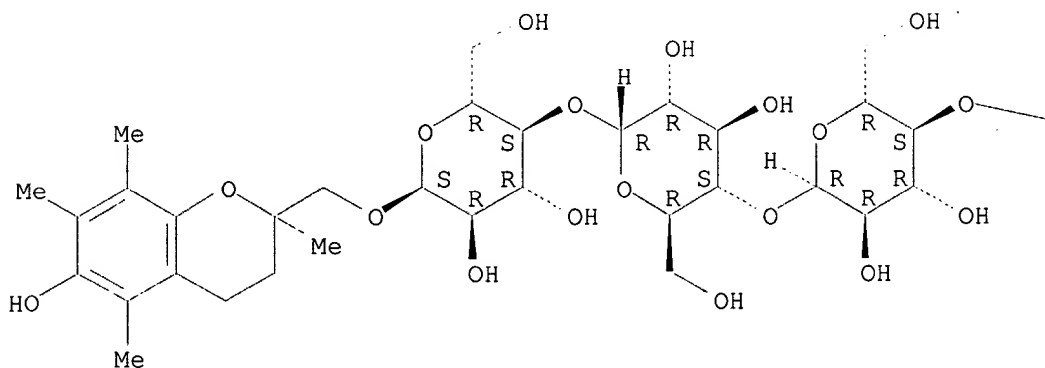


RN 364783-92-6 HCAPLUS

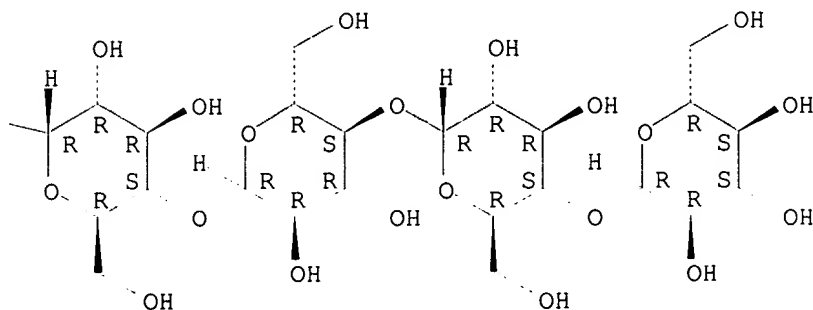
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



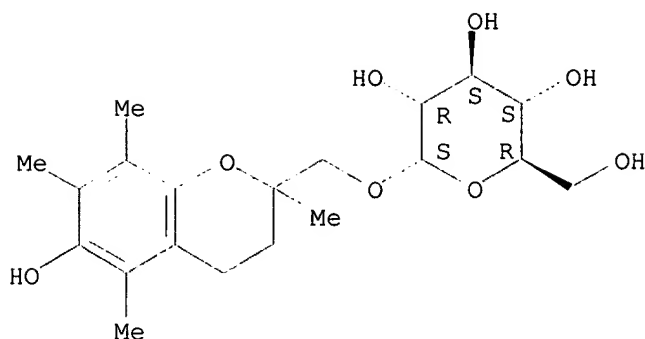
L42 ANSWER 9 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:873186 HCAPLUS  
 DN 136:10925

TI Bath compositions containing glycosides of chromanol derivatives and  
 antiinflammatory agents  
 IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**  
 PA NOF Corporation, Japan; CCI Corp.  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-50  
 ICS A61K031-015; A61K031-19; A61K031-4166; A61K031-7016; A61K045-00;  
 A61P029-00  
 CC 62-4 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001335466	A2	20011204	JP 2000-152086	20000523 <--
PRAI	JP 2000-152086		20000523	<--	
OS	MARPAT 136:10925				

AB The invention relates to a bath compn. having rough skin-improving  
 effects, wherein the compn. contains a glycoside of chromanol deriv.  
 0.001-20 and an antiinflammatory agent 0.01-10 %. A compd.  
 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol glucoside was prepd. and  
 combined at 1 % with guaiazulene 0.5 and other ingredients q.s. to 100 %  
 to obtain a bath compn.  
 ST chromanol deriv glycoside antiinflammatory agent bath compn  
 IT Anti-inflammatory agents  
 Bath preparations  
 (bath compns. contg. glycosides of chromanol derivs. and  
 antiinflammatory agents)  
 IT 489-84-9, Guaiazulene 53956-04-0, Monoammonium glycyrrhizinate  
 135459-36-8  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (bath compns. contg. glycosides of chromanol derivs. and  
 antiinflammatory agents)  
 IT 160455-95-8DP, glucosyl repeating 160455-95-8P  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 (bath compns. contg. glycosides of chromanol derivs. and  
 antiinflammatory agents)  
 IT 9004-53-9, Pinedex 1 79907-49-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (bath compns. contg. glycosides of chromanol derivs. and  
 antiinflammatory agents)  
 IT 160455-95-8DP, glucosyl repeating 160455-95-8P  
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 (bath compns. contg. glycosides of chromanol derivs. and  
 antiinflammatory agents)  
 RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-  
 benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

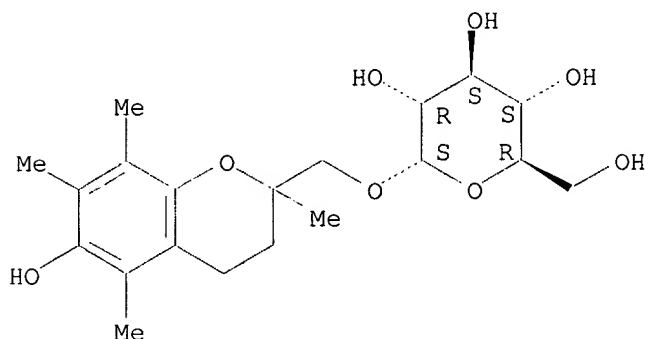
Absolute stereochemistry.



RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 10 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:738287 HCAPLUS

DN 135:293712

TI Skin-lightening cosmetics containing chromanol glycosides and other active agents

IN Ishida, Misaki; Sato, Saori; Murase, Hironobu

PA NOF Corporation, Japan; CCI Corp.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-48

ICS A61K007-00

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

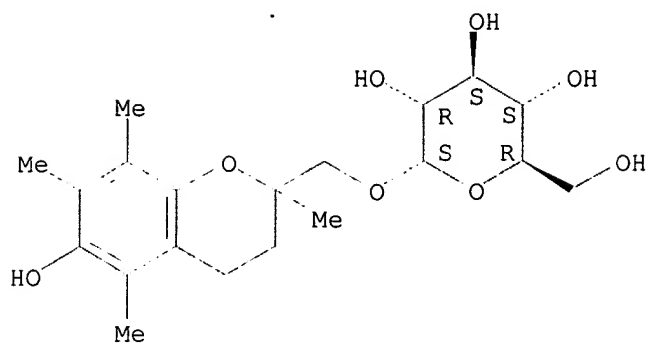
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001278774	A2	20011010	JP 2000-96833	20000331 <--
PRAI	JP 2000-96833		20000331 <--		
OS	MARPAT 135:293712				

AB This invention relates to a skin-lightening cosmetic compn. comprising (1) 0.001-20 % chromanol glycosides and (2) .gtoreq. 1 agent selected from the group consisting of ascorbic acid, placenta exts., kojic acid, ellagic acid, hydroquinone, retinol, tocopherol, glucosamine, azelaic acid, pyridoxine, cinnamic acid, and derivs. thereof. The compns. also moisturize the skin and provide anti-wrinkle effects. Chromanol glucosides were prepd. by treating 2-hydroxymethyl-2,5,7,8-

tetramethylchroman-6-ol with dextrin in the presence of cyclomaltodextrin glucanotransferase. A cream contained chromanol monoglucoside 3, kojic acid 1, tocopherol acetate 0.05, cetanol 3, decamethylcyclopentasiloxane 3, Na sulfite 0.05, other additives q.s., and purified water balance to 100 %.

- ST skin lightening moisturizing cosmetic chromanol glycoside
- IT Antioxidants  
(skin-lightening cosmetics contg. chromanol glycosides and other active agents)
- IT Placental hormones  
Tocopherols  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(skin-lightening cosmetics contg. chromanol glycosides and other active agents)
- IT Cosmetics  
(skin-lightening; skin-lightening cosmetics contg. chromanol glycosides and other active agents)
- IT 160455-95-8P 160455-96-9P 362480-96-4P  
362480-97-5P 362480-98-6P 362481-00-3P  
364783-92-6P 364783-93-7P  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides for skin-lightening cosmetics)
- IT 9030-09-5, Cyclomaltodextrin glucanotransferase  
RL: CAT (Catalyst use); USES (Uses)  
(prepn. of chromanol glycosides for skin-lightening cosmetics)
- IT 9004-53-9, Dextrin 79907-49-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of chromanol glycosides for skin-lightening cosmetics)
- IT 50-81-7, Ascorbic acid, biological studies 58-95-7, Tocopherol acetate  
65-23-6, Pyridoxine 68-26-8, Retinol 123-31-9, Hydroquinone,  
biological studies 123-99-9, Azelaic acid, biological studies  
476-66-4, Ellagic acid 497-76-7, Arbutin 501-30-4, Kojic acid  
621-82-9, Cinnamic acid, biological studies 3416-24-8, Glucosamine  
108910-78-7, Magnesium ascorbyl phosphate  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(skin-lightening cosmetics contg. chromanol glycosides and other active agents)
- IT 160455-95-8P 160455-96-9P 362480-96-4P  
362480-97-5P 362480-98-6P 362481-00-3P  
364783-92-6P 364783-93-7P  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides for skin-lightening cosmetics)
- RN 160455-95-8 HCAPLUS
- CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

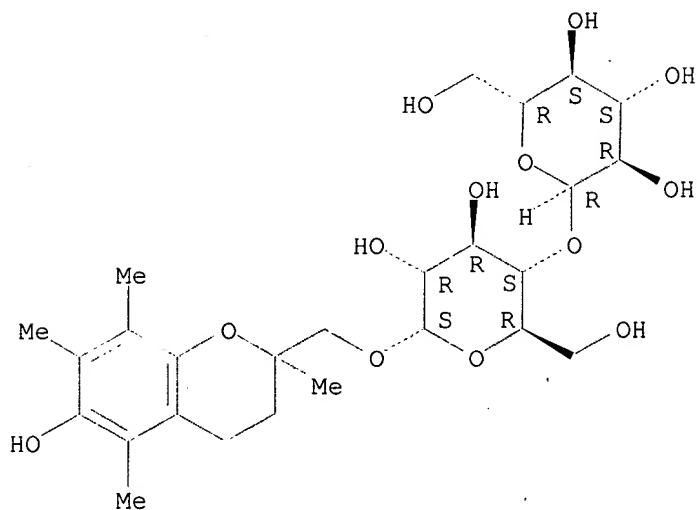
Absolute stereochemistry.



RN 160455-96-9 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

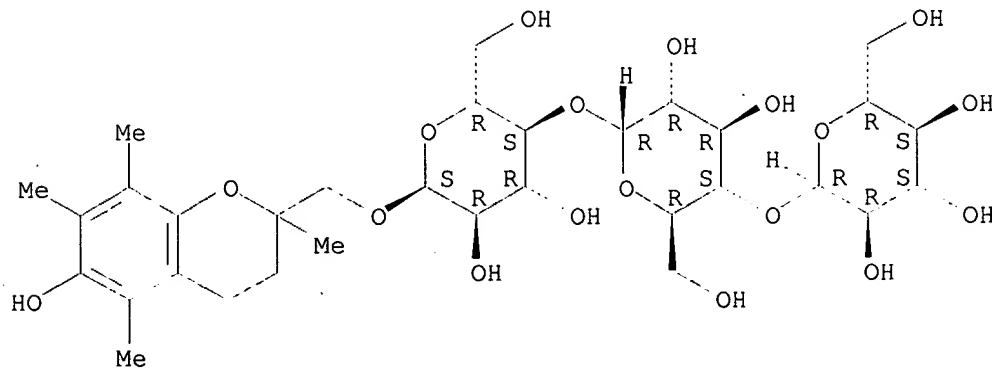
Absolute stereochemistry.



RN 362480-96-4 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

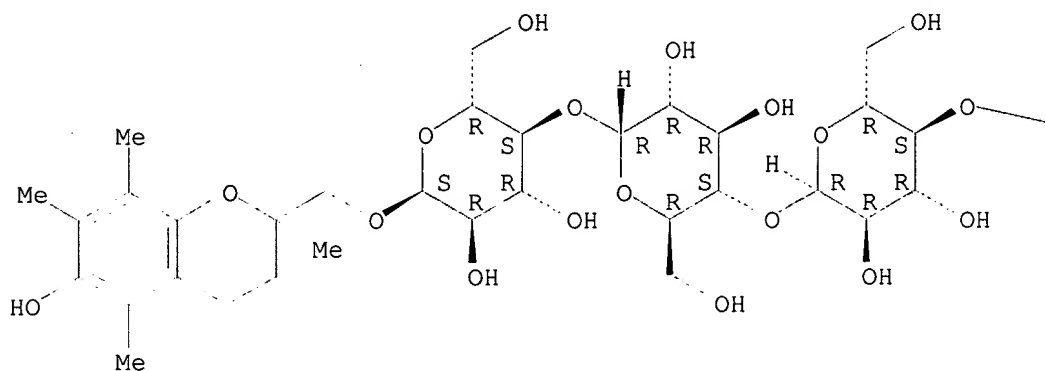


RN 362480-97-5 HCAPLUS

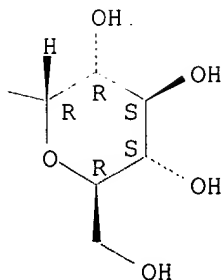
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

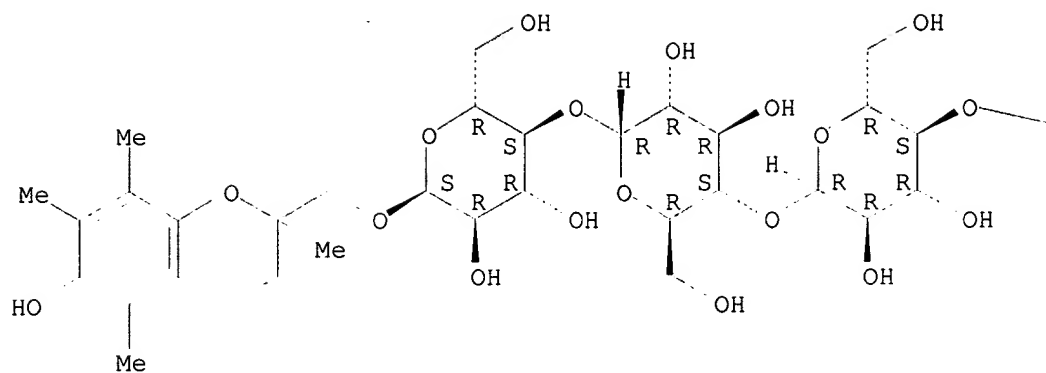


RN 362480-98-6 HCAPLUS

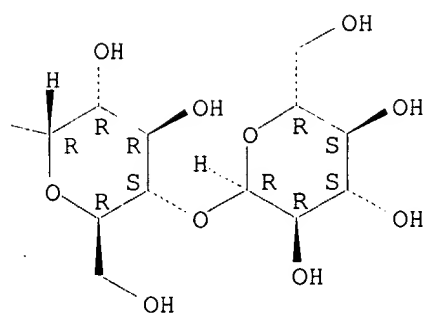
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

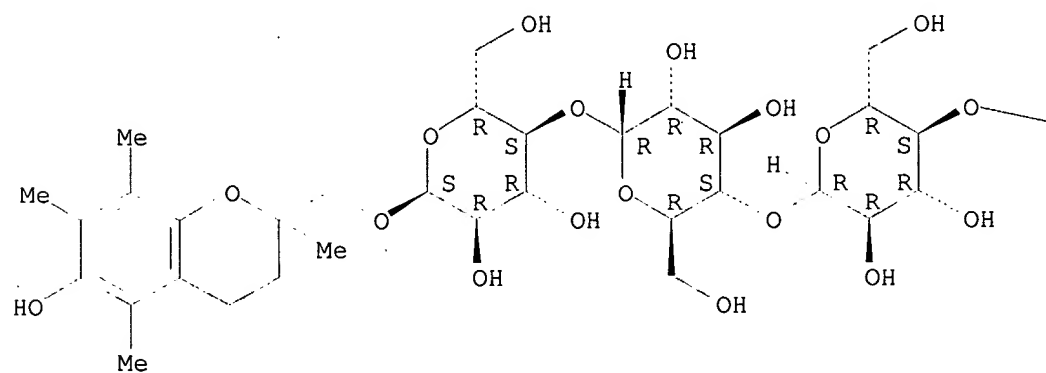


RN 362481-00-3 HCAPLUS

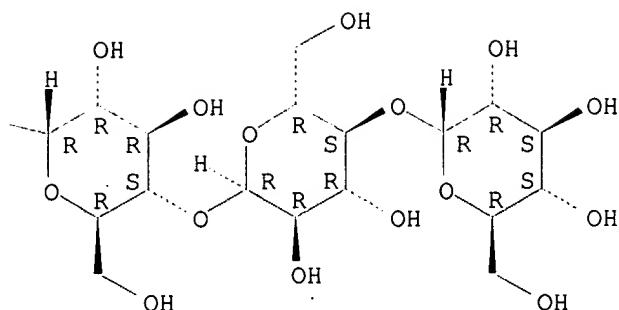
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

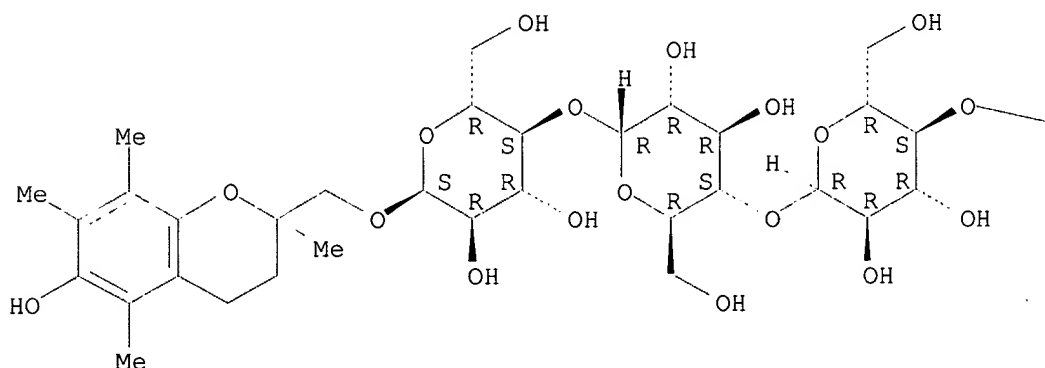


RN 364783-92-6 HCAPLUS

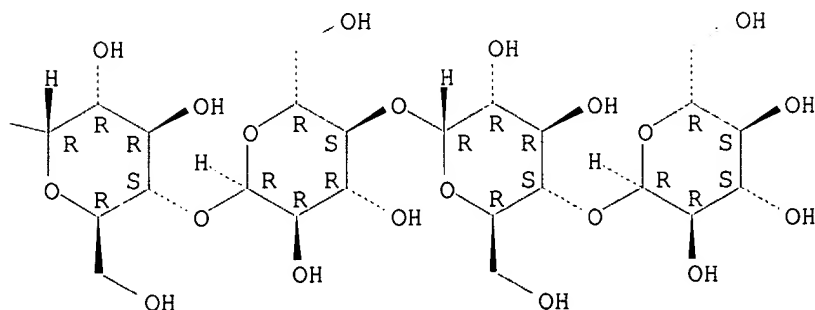
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

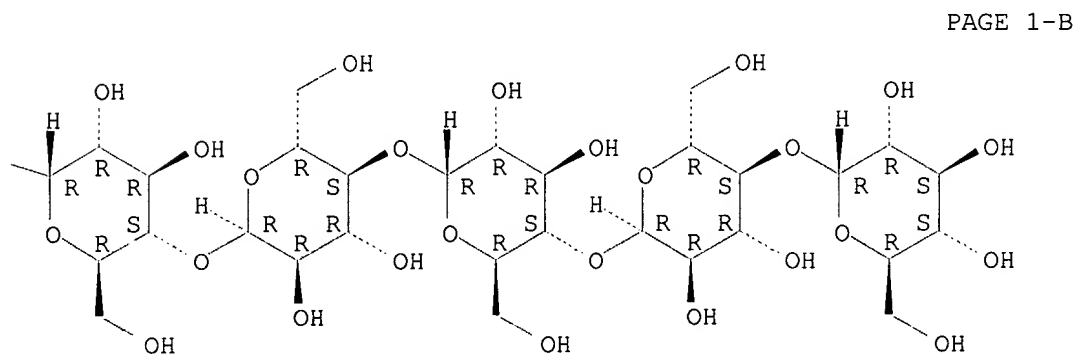
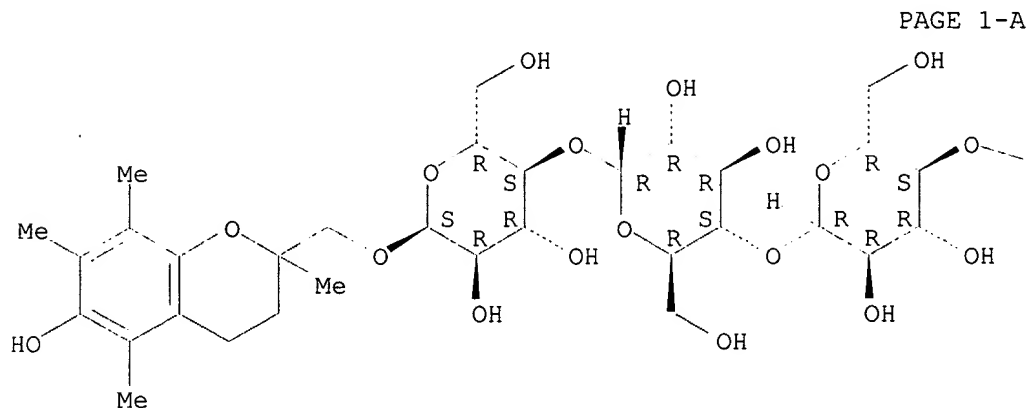


RN 364783-93-7 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-

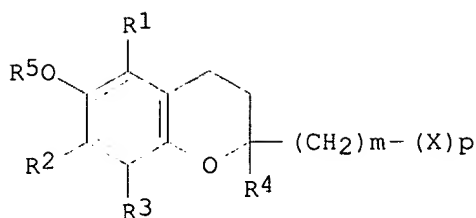
.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-  
(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-  
glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

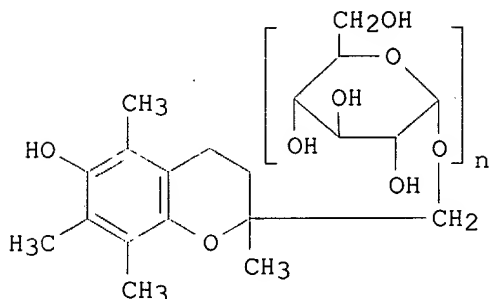


L42 ANSWER 11 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
AN 2001:707351 HCAPLUS  
DN 135:274586  
TI Bar soap compositions  
IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**  
PA NOF Corporation, Japan; CCI Corp.  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C11D009-26  
ICS C11D001-04  
CC 46-2 (Surface Active Agents and Detergents)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001262192	A2	20010926	JP 2000-83022	20000323 <--
PRAI	JP 2000-83022		20000323	<--	
OS	MARPAT 135:274586				
GI					



I



II

AB Title comps. comprise 0.001-20% chromanol glycosides represented by (I) wherein R1-4 = independently H or C1-6 alkyl, R5 = H, C1-6 alkyl, or C1-6 acyl, and X - monosaccharide or oligosaccharide residues, m = integer 0-6, and p = integer 1-10 and 30-90% higher fatty acid salts. The soap produces creamy foams and dissolves well. Thus, 7.5 g Pinedex 1 dissolved in 90 mL 0.5 mM disodium ethylenediaminetetraacetate (pH 5.5) and 8% 2-hydroxymethyl-2,5,7,8-tetramethyl chroman-6-ol dissolved in dimethylsulfoxide gave (II). The chromanol glycoside and the fatty acid salt were agitated to give a bar soap.

ST bar soap contg chromanol glycoside fatty acid salt

IT Soaps

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(bars; bar soap)

IT Glycosides

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(chromanol; bar soap)

IT Tallow

RL: TEM (Technical or engineered material use); USES (Uses)  
(higher fatty acid salts component; bar soap)

IT Fatty acids, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(long-chain, salts, PNV 5; bar soap)

IT Fatty acids, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(palm-oil, higher fatty acid salts component; bar soap)

IT 160455-95-8P 160455-96-9P 362480-96-4P

362480-97-5P 362480-98-6P 362481-00-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(bar soap)

IT 9004-53-9, Pinedex 1 79907-49-6

RL: RCT (Reactant); RACT (Reactant or reagent)  
(bar soap)

IT 57-10-3D, Palmitic acid, derivs. 57-11-4D, Stearic acid, derivs.  
143-07-7D, Lauric acid, derivs. 544-63-8D, Myristic acid, derivs.

RL: TEM (Technical or engineered material use); USES (Uses)  
(higher fatty acid salts component; bar soap)

IT 160455-95-8P 160455-96-9P 362480-96-4P

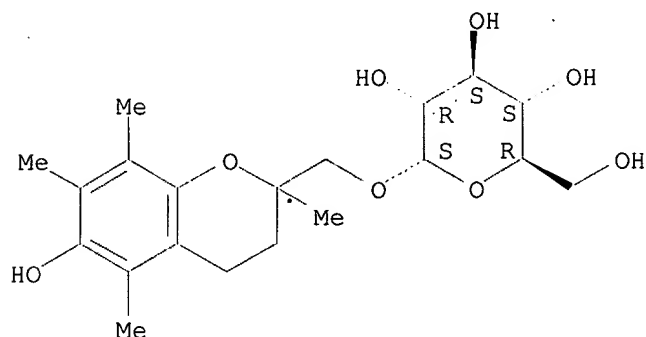
362480-97-5P 362480-98-6P 362481-00-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(bar soap)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

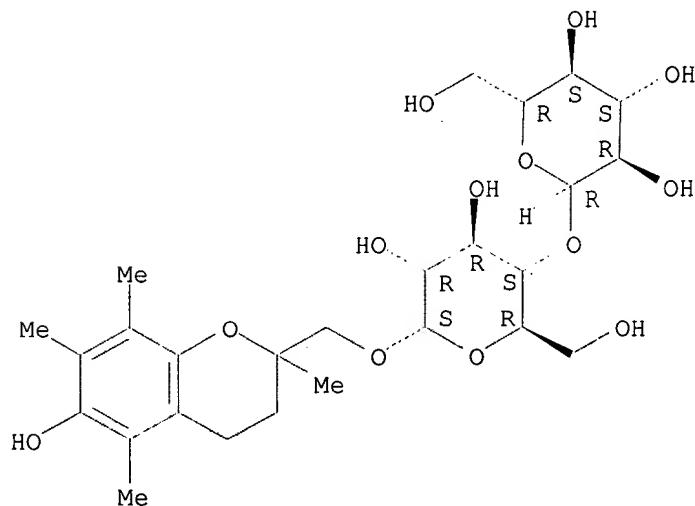
Absolute stereochemistry.



RN 160455-96-9 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

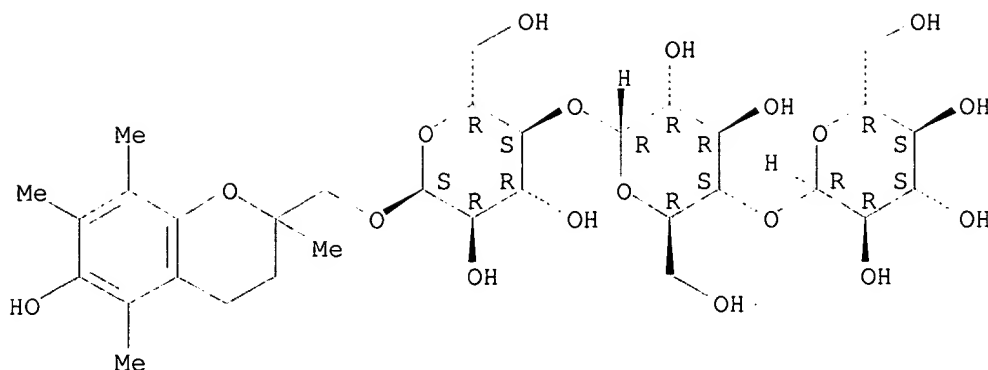
Absolute stereochemistry.



RN 362480-96-4 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

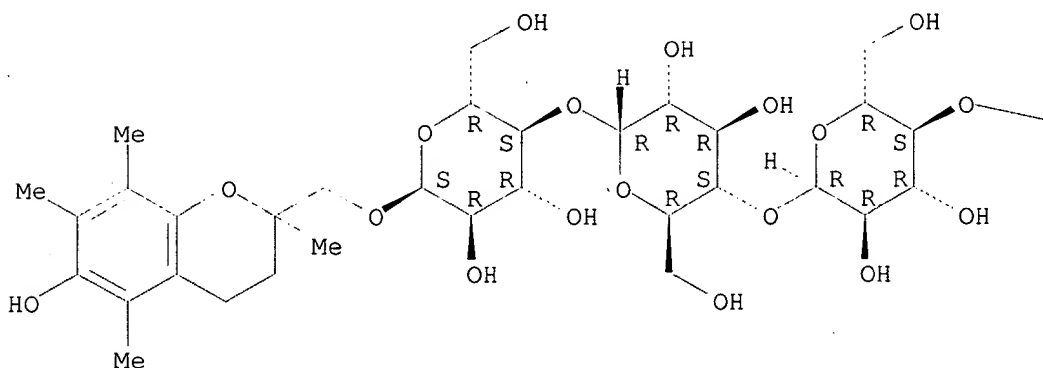


RN 362480-97-5 HCAPLUS

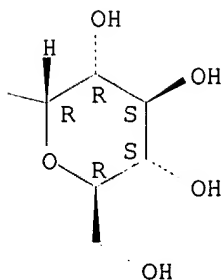
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

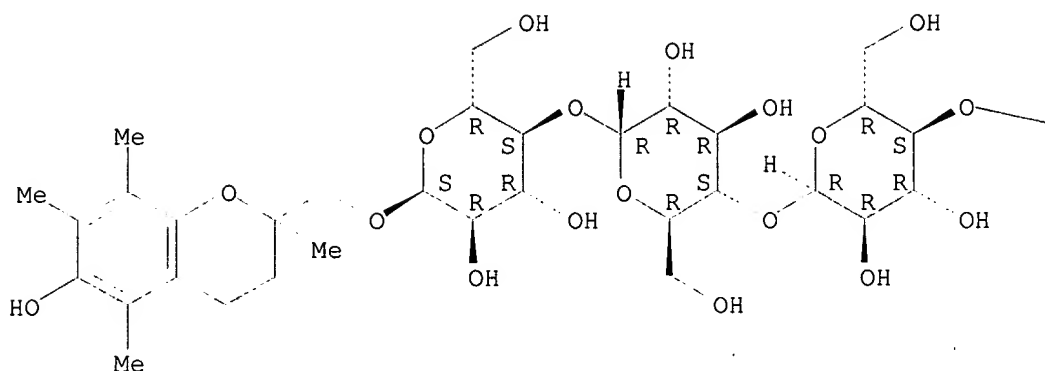


RN 362480-98-6 HCAPLUS

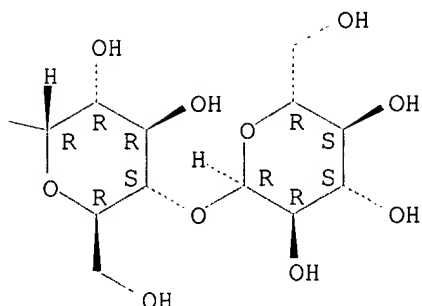
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

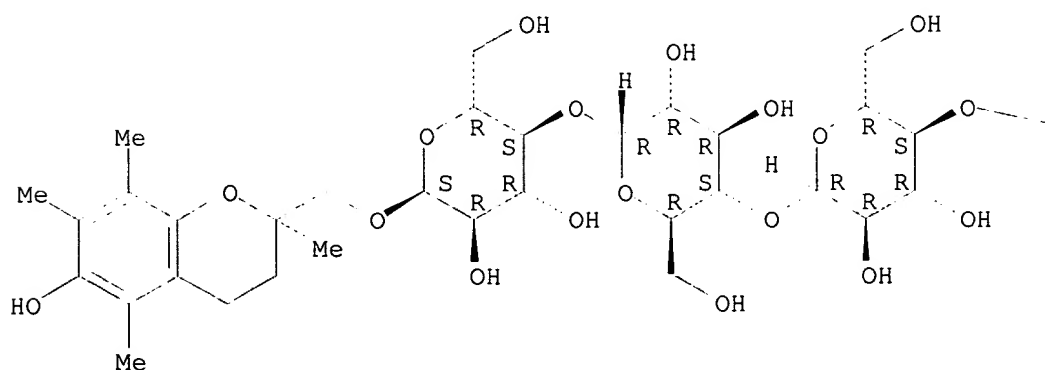


RN 362481-00-3 HCAPLUS

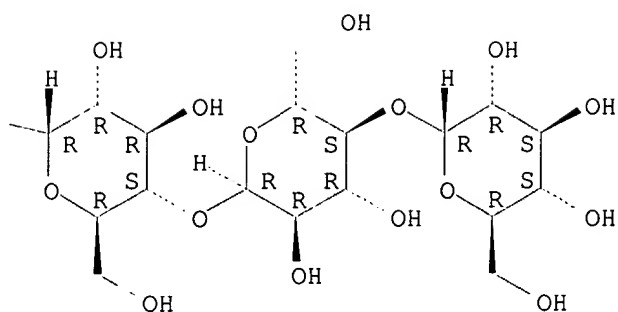
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-D-glucopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

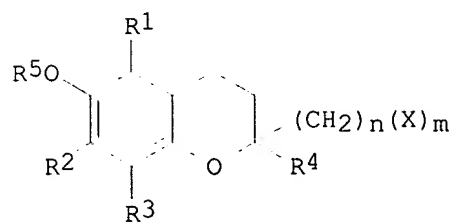


PAGE 1-B



L42 ANSWER 12 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:704683 HCAPLUS  
 DN 135:257369  
 TI Vitamin E derivative chromanol glycosides as water soluble matrix  
 metalloprotease production cancer metastasis inhibitor  
 IN Fujii, Toshiaki; **Murase, Hironobu**; Kunieda, Tsutomu  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K031-7048  
 ICS A61P035-04; A61P043-00; C07H015-26  
 CC 30-20 (Terpenes and Terpenoids)  
 Section cross-reference(s): 1, 4, 7, 63  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001261563	A2	20010926	JP 2000-73790	20000316 <--
PRAI	JP 2000-73790		20000316 <--		
OS	MARPAT 135:257369				
GI					



I

AB 6-Chromanol glycosides of general formula I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide or oligosaccharide whose H atom of OH group may be substituted with lower alkyl or lower acyl; n = 0-6; m = 1-6), useful as matrix metalloprotease prodn. inhibitor, and water sol. cancer metastasis inhibitor, are disclosed. Inhibition of gelatinase prodn. (35%) and infiltration of human fibrosarcoma derived HT-1080 cells (24%) by 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol (TMG), was detected. Acute toxicol. studies and prepn. of powder, granule,

tablet, capsule, and injection formulations, are also described.

ST chromanol glycoside matrix metalloprotease cancer metastasis inhibitor;  
vitamin E deriv matrix metalloprotease cancer metastasis inhibitor

IT Animal cell line  
(HT-1080, cancer metastasis inhibition in; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Drug delivery systems  
(capsules; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Glycosides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(chromanol; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Drug delivery systems  
(granules; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Drug delivery systems  
(injections; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Neoplasm  
(metastasis, inhibitor; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Drug delivery systems  
(powders; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT Drug delivery systems  
(tablets; vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT 5614-78-8D, 6-Chromanol, glycosides 160455-95-8, 2-(  
.alpha.-D-Glucopyranosyl)methyl-  
2,5,7,8-tetramethylchroman  
-6-ol  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

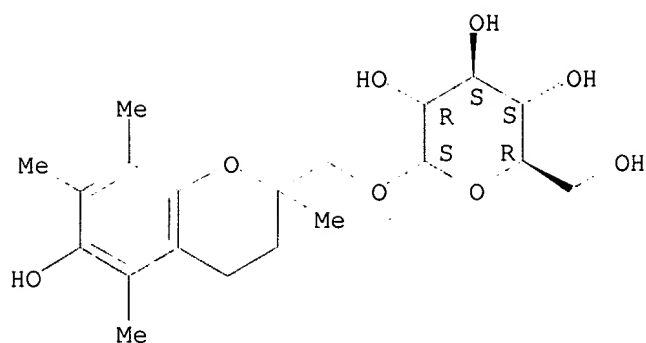
IT 9040-48-6, Gelatinase 141907-41-7  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(vitamin E deriv. chromanol glycosides as water sol. matrix metalloprotease prodn. cancer metastasis inhibitor)

RN 160455-95-8 HCAPLUS

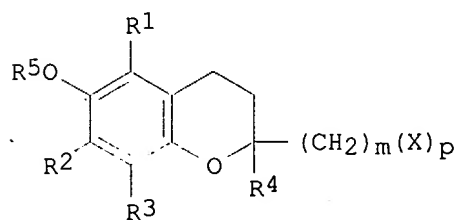
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 13 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:683988 HCAPLUS  
 DN 135:247017  
 TI Skin-moisturizing, -conditioning, and antiwrinkle cosmetics containing chromanol glycosides  
 IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**  
 PA NOF Corporation, Japan; CCI Corp.  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-48  
 ICS A61K007-00  
 CC 62-4 (Essential Oils and Cosmetics)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001253816	A2	20010918	JP 2000-68084	20000313 <--
PRAI	JP 2000-68084		20000313	<--	
OS	MARPAT 135:247017				
GI					



AB The cosmetics contain 0.00005-2 wt.% Akebia quinata and/or Astragalus sinicus exts. and 0.001-20 wt.% chromanol glycosides I [R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = (C1-18 alkyl- or C1-18 acyl-substituted) monosaccharide residue, oligosaccharide residue; m = 0-6; p = 1-10]. The cosmetics are nonsticky and show good storage stability.

ST cosmetic chromanol glycoside Akebia Astragalus ext; moisturizer  
 conditioner antiwrinkle cosmetic chromanol glycoside

IT Cosmetics  
 (conditioners; cosmetics contg. chromanol glycosides and Akebia quinata and/or Astragalus sinicus exts.)

IT Glycosides  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);

BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (cosmetics contg. chromanol glycosides and Akebia quinata and/or  
 Astragalus sinicus exts.)

IT Akebia quinata  
 Astragalus sinicus  
 (exts.; cosmetics contg. chromanol glycosides and Akebia quinata and/or  
 Astragalus sinicus exts.)

IT Cosmetics  
 (moisturizers; cosmetics contg. chromanol glycosides and Akebia quinata  
 and/or Astragalus sinicus exts.)

IT Cosmetics  
 (wrinkle-preventing; cosmetics contg. chromanol glycosides and Akebia  
 quinata and/or Astragalus sinicus exts.)

IT 79907-49-6DP, glycosides **160455-95-8P**  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (cosmetics contg. chromanol glycosides and Akebia quinata and/or  
 Astragalus sinicus exts.)

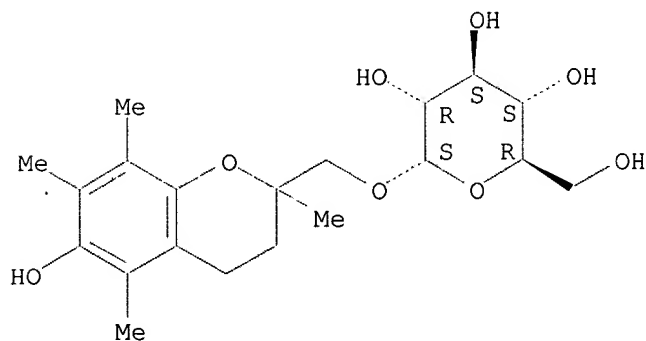
IT 9004-53-9, Pinedex 1 79907-49-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cosmetics contg. chromanol glycosides and Akebia quinata and/or  
 Astragalus sinicus exts.)

IT **160455-95-8P**  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (cosmetics contg. chromanol glycosides and Akebia quinata and/or  
 Astragalus sinicus exts.)

RN 160455-95-8 HCAPLUS

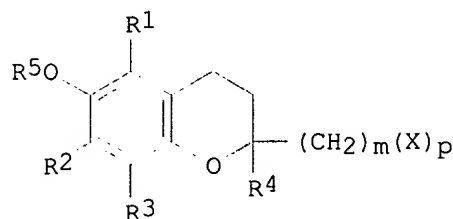
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-  
 benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 14 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:681385 HCAPLUS  
 DN 135:247015  
 TI Skin-moisturizing, -conditioning, and antiwrinkle cosmetics containing  
 chromanol glycosides  
 IN Ishida, Misaki; Sato, Saori; **Murase, Hironobu**  
 PA NOF Corporation, Japan; CCI Corp.  
 SO Jpn. Kokai Tokyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K007-48  
 ICS A61K007-00  
 CC 62-4 (Essential Oils and Cosmetics)  
 FAN.CNT 1

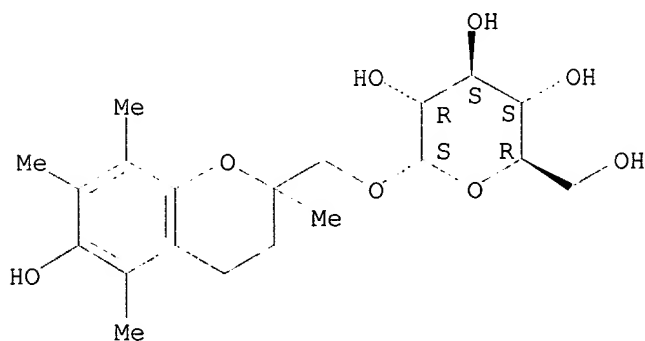
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001253815	A2	20010918	JP 2000-68083	.20000313 <--
PRAI	JP 2000-68083		20000313 <--		
OS	MARPAT 135:247015				
GI					



- AB The cosmetics contain chromanol glycosides I [R1-R4 = H, C1-6 alkyl; R5 = H, C1-6 alkyl, C1-6 acyl; X = (C1-18 alkyl- or C1-18 acyl-substituted) monosaccharide residue, oligosaccharide residue; m = 0-6; p = 1-10] 0.001-20, acidic mucopolysaccharides 0.001-3, and polyols or their partial esters 0.1-30 wt.%. The cosmetics are nonsticky and show good storage stability.
- ST cosmetic chromanol glycoside acidic mucopolysaccharide polyol; moisturizer conditioner antiwrinkle cosmetic chromanol glycoside
- IT Mucopolysaccharides, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(acid; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT Cosmetics  
(conditioners; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT Cosmetics  
(moisturizers; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT Alcohols, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(polyhydric; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT Glycosides  
RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT Polyoxyalkylenes, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT Cosmetics  
(wrinkle-preventing; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT 9067-32-7, FCH 200  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

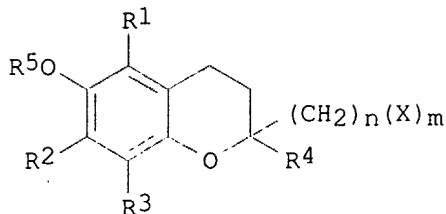
- (FCH 200; skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT 79907-49-6DP, glycosides **160455-95-8P**  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT 56-81-5, Glycerin, biological studies 9004-99-3, Polyoxyethylene monostearate 9005-65-6, Polyoxyethylene sorbitan monooleate 9005-67-8, Polyoxyethylene sorbitan monostearate 9007-28-7, Chondroitin sulfate 25265-71-8, Dipropylene glycol 25322-68-3, Polyethylene glycol 25496-72-4, Glycerin monooleate 31566-31-1, Glycerin monostearate 49553-76-6, Diglycerin monooleate  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT 9004-53-9, Pinedex 1 79907-49-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- IT **160455-95-8P**  
 RL: BPN (Biosynthetic preparation); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (skin-moisturizing, -conditioning, and antiwrinkle cosmetics contg. chromanol glycosides, acidic mucopolysaccharides, and polyols)
- RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 15 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:628693 HCAPLUS  
 DN 135:190441  
 TI Chromanol glycosides as tears secretion promoters  
 IN Fujii, Toshiaki; Murase, Hironobu; Kunieda, Tsutomu  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K031-7048  
 ICS A61K009-08; A61P027-02; C07H015-26; C07H017-065  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 63  
 FAN.CNT 1  
 PATENT NO. KIND DATE APPLICATION NO. DATE

PI	JP 2001233775	A2	20010828	JP 2000-51476	20000228 <--
PRAI	JP 2000-51476		20000228 <--		
GI					



AB Chromanol glycosides (I; R1, R2, R3, R4 = H, low alkyl; R5= H, low alkyl, low acyl; X = (substituted) mono- or oligo saccharide; N = 0-6; m = 1-6) are claimed as tears secretion promoters for treatment of dry eye, allergic conjunctivitis and other eye diseases. Formulation examples of eye drops and ointments were given.

ST chromanol glycoside tear secretion eye disease

IT Eye, disease  
(allergic conjunctivitis; chromanol glycosides as tears secretion promoters)

IT Eye, disease  
Tear (ocular fluid)  
(chromanol glycosides as tears secretion promoters)

IT Glycosides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(chromanol glycosides as tears secretion promoters)

IT Eye, disease  
(dry; chromanol glycosides as tears secretion promoters)

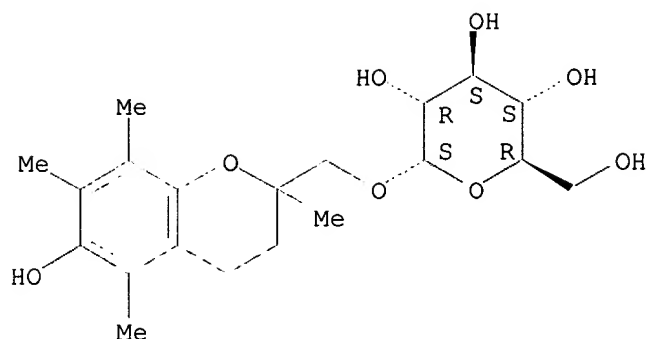
IT 950-99-2D, glycosides **160455-95-8**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(chromanol glycosides as tears secretion promoters)

IT **160455-95-8**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(chromanol glycosides as tears secretion promoters)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 16 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:627006 HCAPLUS

DN 135:185494

TI Chromanol derivatives for the treatment of corneal injuries

IN Fujii, Toshiaki; Murase, Hironobu; Kunieda, Tsutomu

PA CCI Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K031-7048

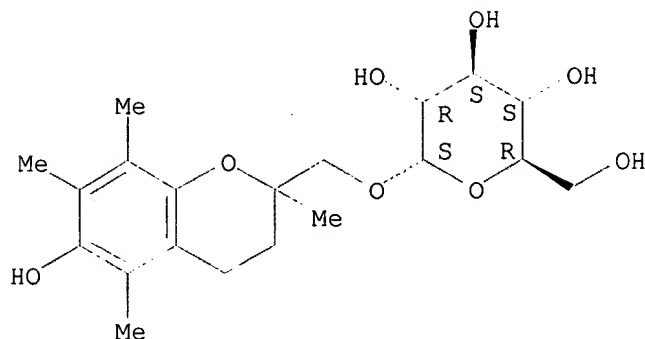
ICS A61K009-08; A61P027-02; C07H015-26; C07H017-065

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

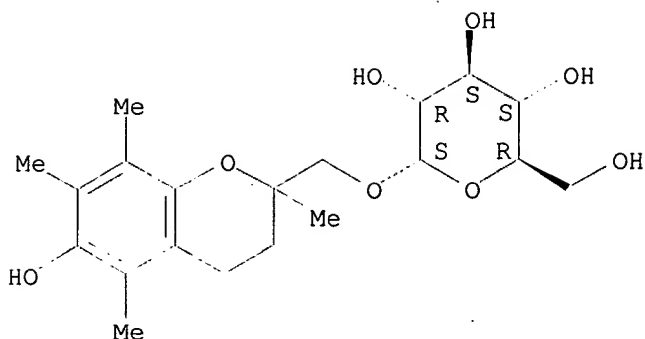
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001233774	A2	20010828	JP 2000-44435	20000222 <--
PRAI	JP 2000-44435		20000222 <--		
OS	MARPAT 135:185494				
AB	This invention relates to the use of chromanol glycosides for the treatment of corneal injuries. The compd., 2-(.alpha .-D-glucopyranosyl)methyl-2, 5, 7, 8-tetramethylchroman-6 -ol (I) is claimed. I is formulated in an aq. ophthalmic compn.				
ST	ophthalmic compn chromanol glycoside cornea injury				
IT	Eye, disease (cornea, injury; chromanol glycosides for treatment of corneal injuries)				
IT	Drug delivery systems (ointments, ophthalmic; chromanol glycosides for treatment of corneal injuries)				
IT	Drug delivery systems (solns., ophthalmic; chromanol glycosides for treatment of corneal injuries)				
IT	160455-95-8 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (chromanol glycosides for treatment of corneal injuries)				
IT	160455-95-8 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (chromanol glycosides for treatment of corneal injuries)				
RN	160455-95-8 HCAPLUS				
CN	.alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



L42 ANSWER 17 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2001:622482 HCAPLUS  
 DN 136:303396  
 TI A novel water-soluble vitamin E derivative  
 AU **Murase, Hironobu**  
 CS Res. Dev. Dep., CCI Corp., Japan  
 SO Cell (Tokyo, Japan) (2000), 32(2), 61-67  
 CODEN: SAIBD8; ISSN: 0386-4766  
 PB Nyu Saiensusha  
 DT Journal; General Review  
 LA Japanese  
 CC 1-0 (Pharmacology)  
 AB A review, discussing the antioxidant effect of a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury.  
 ST review vitamin E deriv antioxidant TMG antiischemic  
 IT Anti-ischemic agents  
 Antioxidants  
 (a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)  
 IT Reperfusion  
 (ischemia injury; a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)  
 IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-Tetramethylchroman-6-ol  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)  
 IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-Tetramethylchroman-6-ol  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (a novel water-sol. vitamin E deriv. TMG against ischemia-reperfusion injury)  
 RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 18 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:549937 HCAPLUS

DN 136:257109

TI Protective effect of a novel vitamin E derivative on experimental traumatic brain edema in rats - preliminary study

AU Ikeda, Y.; Mochizuki, Y.; Nakamura, Y.; Dohi, K.; Matsumoto, H.; Jimbo, H.; Hayashi, M.; Matsumoto, K.; Yoshikawa, T.; Murase, H.; Sato, K.

CS Department of Neurosurgery, Showa University School of Medicine, Tokyo, Japan

SO Brain Edema XI, Proceedings of the International Symposium, 11th, Newcastle-upon-Tyne, United Kingdom, June 6-10, 1999 (2000), Meeting Date 1999, 343-345. Editor(s): Mendelow, A. David. Publisher: Springer-Verlag Wien, Wien, Austria.

CODEN: 69BOY6

DT Conference

LA English

CC 1-11 (Pharmacology)

AB Oxygen free radicals have been proposed to be one of the major mechanisms of secondary brain damage in traumatic brain injury. Protective effect by vitamin E against oxidative damage has attracted much attention. Recent studies have demonstrated a novel vitamin E deriv., 2-(**alpha-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman**

-6-ol (TMG), has excellent water-soly. and antioxidant activity. The purpose of this study was to investigate protective effects of TMG on exptl. traumatic brain edema (BE). Male Wistar rats were anesthetized with chloral hydrate. Traumatic BE was produced by a cortical freezing lesion. Animals were sepd. into three groups: saline-treated rats (n = 4). TMG-treated (4 mg/kg) rats (n = 7) and TMG-treated (40 mg/kg) rats (n = 8). Saline or TMG was administered i.v. before lesion prodn. Animals were sacrificed at 6 h after lesion prodn. and the brain water content was detd. by the dry-wet wt. method. Half-life of TMG after i.v. administration of TMG was also investigated. The half life of TMG was approx. 5 min. TMG (40 mg/kg) significantly attenuated BE following cryogenic brain injury (p < 0.01). In conclusion, this preliminary study has demonstrated that a novel vitamin E deriv. might be promising in the treatment of traumatic BE.

ST vitamin E deriv TMG antiinflammatory antioxidant trauma brain edema

IT Brain, disease

(edema; protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)

IT Brain, disease

(injury; protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)

IT Anti-inflammatory agents

Antioxidants

(protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)

IT Brain, disease

(trauma; protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)

IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Busto, R; Ann Neurol 1984, V15, P441 HCAPLUS
- (2) Fukuzawa, K; Arch Biochem Biophys 1983, V226, P242 HCAPLUS
- (3) Grams, G; Tetrahedron Lett 1971, V50, P4823
- (4) Ikeda, Y; Neurosurgery 1990, V27, P1 MEDLINE
- (5) Murase, H; Free Radical Biol Med 1998, V24, P217 HCAPLUS
- (6) Murase, H; Lipids 1997, V32, P73 HCAPLUS
- (7) Nishikimi, M; Biochem Biophys Acta 1980, V627, P101 HCAPLUS
- (8) Shohami, E; J Cereb Blood Flow Metab 1997, V17, P1007 HCAPLUS
- (9) Tagami, M; Lab Invest 1998, V78, P1415 HCAPLUS
- (10) Yoshida, S; Neurology 1983, V33, P166 HCAPLUS
- (11) Young, B; JAMA 1996, V276, P538 HCAPLUS

IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol

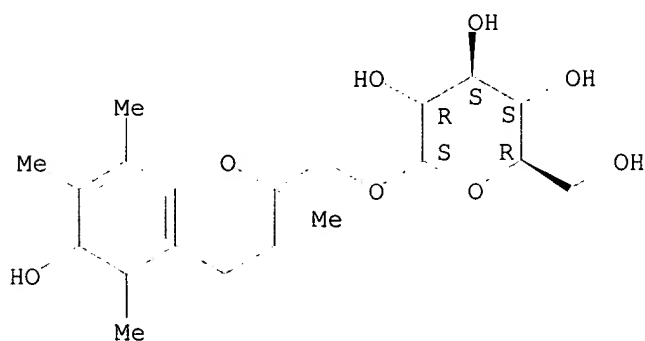
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(protective effect of a novel vitamin E deriv. on exptl. traumatic brain edema in rats)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 19 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:537012 HCAPLUS

DN 135:354742

TI In vivo radioprotection by .alpha.-TMG: preliminary studies

AU Satyamitra, M.; Devi, P. U.; Murase, H.; Kagiya, V. T.

CS Department of Radiobiology, Kasturba Medical College, Manipal, 576119, India

SO Mutation Research (2001), 479(1,2), 53-61

CODEN: MUREAV; ISSN: 0027-5107

PB Elsevier Science B.V.

DT Journal  
 LA English  
 CC 8-6 (Radiation Biochemistry)  
 AB .alpha.-TMG is a novel water-sol. deriv. of Vitamin E that has shown excellent antioxidant activity. The parent compd. has demonstrated protection against radiation induced chromosomal damage in vivo. Hence, the preliminary expts. to det. the radioprotective activity of .alpha.-TMG were carried out in adult Swiss albino mice. Acute toxicity of the drug was studied taking 24 h, 72 h and 30 day mortality after a single i.p. injection of 500-2000 mg/kg body wt. of the drug. The drug LD50 for 24 h and 72 h/30 day survival were found to be 1120 and 1000 mg/kg body wt., resp. The optimum time of drug administration and drug dose-dependent effect on in vivo radiation protection of bone marrow chromosomes was studied in mice. Injection of 600 mg/kg of the drug 15 min before or within 5, 15 or 30 min after 3 Gy whole body gamma radiation resulted in a significant decrease in the aberrant metaphases percent at 24 h post-irradn.; the max. effect was seen when the drug was given immediately after irradiation. Injection of 200-800 mg/kg TMG within 5 min of irradiation with 3 Gy produced a significant dose-dependent reduction in the radiation induced percent aberrant metaphases and in the frequency of micronucleated erythrocytes at 24 h after exposure, with a corresponding decrease in the different types of aberrations. The optimum dose for protection without drug toxicity was 600 mg/kg body wt. At this dose, TMG produced 70 and >60% reduction in the radiation induced percent aberrant metaphases and micronucleated erythrocytes, resp. The high water soly. and effectiveness when administered post-irradiation favor TMG as a likely candidate for protection in case of accidental exposures.

ST radioprotectant alpha TMG bone marrow chromosome damage gamma radiation  
 IT Antioxidants  
 Bone marrow  
 Radioprotectants  
 (in vivo radioprotection by .alpha.-TMG [2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol])

IT Gamma ray  
 (irradiation; in vivo radioprotection by .alpha.-TMG [2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol])

IT Chromosome  
 (protection against radiation damage; in vivo radioprotection by .alpha.-TMG [2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol])

IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (in vivo radioprotection by .alpha.-TMG [2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol])

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) Bender, M; Mutat Res 1988, V196, P103 MEDLINE  
 (2) Bichay, T; Strahlenther Onkol 1986, V162, P391 HCAPLUS  
 (3) Chaubey, R; Int J Radiat Biol 1993, V63, P239 MEDLINE  
 (4) Chopin, J; The Flavonoids 1974, P632  
 (5) Chow, C; Free Rad Biol Med 1991, V11, P215 HCAPLUS

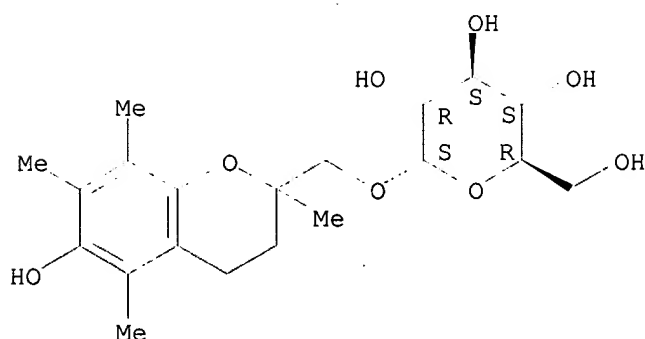
- (6) Ganasoundari, A; Mutat Res 1997, V373, P271 HCAPLUS
- (7) Ganasoundari, A; Mutat Res 1998, V397, P303 HCAPLUS
- (8) Geigy, J; Documenta Geigy Scientific Tables 5th Edition 1956, P26
- (9) Gogu, S; Proc Am Assoc Cancer Res 1990, V31, P404
- (10) Gupta, R; Br J Radiol 1986, V59, P625 HCAPLUS
- (11) Hofer, M; Radiat Res 2000, V154, P217 HCAPLUS
- (12) Jagetia, G; Mutat Res 1997, V393, P157 MEDLINE
- (13) Maisin, J; Radiat Res 1993, V135, P332 HCAPLUS
- (14) Malick, M; Experientia 1978, V34, P1216 MEDLINE
- (15) Murase, H; Free Rad Biol Med 1998, V24, P217 HCAPLUS
- (16) Murase, H; Lipids 1997, V32, P73 HCAPLUS
- (17) Njus, D; FEBS Lett 1991, V284, P147 HCAPLUS
- (18) Roy, R; Pharmacol Ther 1988, V39, P393 HCAPLUS
- (19) Sarma, L; Int J Radiat Biol 1993, V63, P759 HCAPLUS
- (20) Schmid, W; Mutat Res 1975, V31, P9 HCAPLUS
- (21) Srinivasan, V; Int J Radiat Oncol Biol Phys 1992, V23, P841 HCAPLUS
- (22) Thomas, B; Strahlenther Onkol 1987, V163, P807 HCAPLUS
- (23) Turner, R; Screening Methods in Pharmacology 1965, V1, P27
- (24) Uma Devi, P; Br J Radiol 1998, V71, P782
- (25) Uma Devi, P; Radiat Res 1990, V124, P165 MEDLINE
- (26) Uma Devi, P; Radiat Res 1999, V151, P74 MEDLINE
- (27) Uma Devi, P; Radiat Res 2000, V154, P455 MEDLINE
- (28) Yuhas, J; Int J Radiat Biol 1969, V15, P233 HCAPLUS
- (29) Yuhas, J; Radiation-Drug Interactions in the Treatment of Cancer 1980, P113

IT 160455-95-8, 2-(.alpha.-D-Glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol  
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (in vivo radioprotection by .alpha.-TMG [2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol])

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 20 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:479755 HCAPLUS

DN 135:71278

TI Chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents

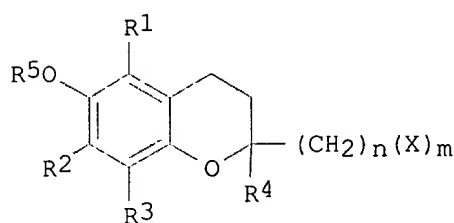
IN Murase, Hironobu; Yoshikawa, Toshikazu

PA Cci Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K031-7048  
 ICS A61P019-02; A61P029-00; C07H017-065  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001181191	A2	20010703	JP 1999-367909	19991224 <--
PRAI	JP 1999-367909		19991224	<--	
GI					



AB Chromanol glycosides (I; R1, R2, R3, R4 = H, low alkyl; R5 = H, low alkyl, low acyl; X = (substituted)low alkyl at OH of sugar residue and low acyl of mono- or oligosaccharide residue; N = 0-6; m = 1-6), including **2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol**, are claimed as chronic articular rheumatoid disease preventive and remedy agents. Formulation examples of powders, granules, tablets, capsules, and injections were given.

ST chromanol glycoside articular rheumatoid disease

IT Drug delivery systems  
 (capsules; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT Antirheumatic agents  
 (chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT Drug delivery systems  
 (granules; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT Drug delivery systems  
 (injections; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT Drug delivery systems  
 (powders; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT Drug delivery systems  
 (tablets; chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT 41903-66-6D, glycosides **160455-95-8**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

IT **160455-95-8**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

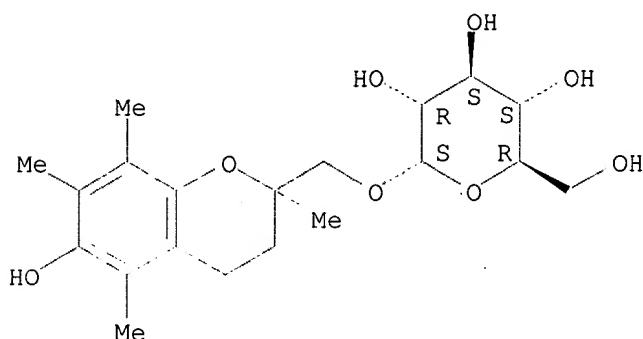
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chromanol glycosides as chronic articular rheumatoid disease preventive and remedy agents)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 21 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:53295 HCAPLUS

DN 134:322771

TI Study of the radioprotective effects of TMG on teratogenic malformations in irradiated mice

AU Gu, Yeunhwa; Hasegawa, Takeo; Kim, Hwakon; Suzuki, Ikukatsu; Mori, Takehiko; Yamamoto, Youichi

CS Dep. Radiol. Technol., Suzuka Univ. Med. Sci., Suzuka, 510-0293, Japan

SO Nippon Igaku Hoshasen Gakkai Zasshi (2000), 60(14), 845-855

CODEN: NHGZAR; ISSN: 0048-0428

PB Nippon Igaku Hoshasen Gakkai

DT Journal

LA Japanese

CC 8-6 (Radiation Biochemistry)

AB ICR mice fetuses in the organogenesis stage were used to clarify exptl. the mechanism of the protective effect of vitamin E deriv. (TMG: 2

-(.alpha.-D-glucopyranosyl) methyl

-2,5,7,8-

Tetramethylchroman-6-ol) on the effects of

radiation. The authors paid careful attention to radiation, and the radioprotective effects of TMG on the induction of malformations was examd. Radiation is an important consideration because of its widespread use in the areas of medicine, nuclear energy, and industry. Malformations induced by radiation at the organogenesis stage, skeletal malformations, and the effects at the cellular level of embryos were examd. in this research. Further, the mechanism of the protection effect of TMG against radiation-induced malformations was analyzed and obsd. exptl. Thus, this study was done to provide fundamental data on the radioprotective agent TMG. It was clear that TMG exerted radioprotective effects against embryonic death and the rate of teratogenesis when administered before exposure. Such effects were also exerted against skeletal malformations and fetal body wt. In summary, radioprotective effects were obsd. at the whole-body level as well as at the cellular level.

ST vitamin E deriv radioprotective fetus malformation; TMG skeletal malformation radioprotectant teratogenesis

IT Toxicity

(embryotoxicity; radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT Embryo, animal  
(fetus; radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT Skeleton  
(malformation; radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT Cell nucleus  
(micronucleus; radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT Cell nucleus  
(pyknosis; radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT Apoptosis  
Body weight  
Radioactive pollution  
Radioprotectants  
Teratogenesis  
(radioprotective effect of TMG on teratogenic malformation in irradiated mice)

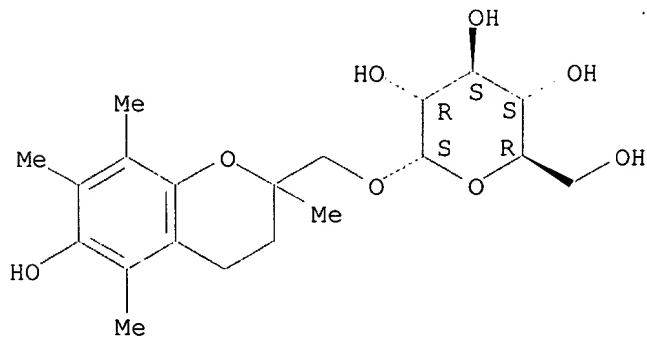
IT **160455-95-8**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(radioprotective effect of TMG on teratogenic malformation in irradiated mice)

IT **160455-95-8**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(radioprotective effect of TMG on teratogenic malformation in irradiated mice)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 22 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:706992 HCAPLUS

DN 133:271412

TI Skin preparations containing chromanol glycosides

IN **Murase, Hironobu**; Fujii, Toshiaki

PA CCI Corp., Japan

SO PCT Int. Appl., 33 pp.  
CODEN: PIXXD2

DT Patent

LA Japanese

IC A61K031-7048; A61K007-42; A61K007-48; A61P017-00; A61P043-00; C07H015-26;

C07H017-065

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000057889	A1	20001005	WO 2000-JP2034	20000330 <--
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1174140	A1	20020123	EP 2000-912985	20000330 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	JP 1999-93874	A	19990331	<--	
	JP 2000-22596	A	20000131	<--	
	WO 2000-JP2034	W	20000330	<--	
OS	MARPAT 133:271412				
AB	Disclosed are skin preps. for external use which contain chromanol glycosides. These preps. are novel preps. which are excellent in stability and transdermal absorbability, can safely exert favorable effects in a small dose and are usable in preventing and treating skin disorders. They are highly useful as preventives and remedies for disorders caused by UV light, preventives and ameliorators for skin pigmentation, skin whitening agents, skin age resistors, cell potentiators, etc. A lotion contained 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol 1, ethanol 3, hydroxyethyl cellulose 0.1, methylparaben 0.1 g, and distd. water q.s. to 100 mL.				
ST	antiaging skin prepn chromanol glycoside				
IT	Cosmetics				
	(antiaging; skin preps. contg. chromanol glycosides)				
IT	Cosmetics				
	(creams; skin preps. contg. chromanol glycosides)				
IT	Skin, disease				
	(hyperpigmentation, UV ray-induced, prevention of; skin preps. contg. chromanol glycosides)				
IT	Cosmetics				
	(lotions; skin preps. contg. chromanol glycosides)				
IT	Skin, disease				
	(photoaging, prevention of; skin preps. contg. chromanol glycosides)				
IT	Glycosides				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(skin preps. contg. chromanol glycosides)				
IT	Cosmetics				
	(skin-lightening; skin preps. contg. chromanol glycosides)				
IT	160455-95-8 197315-53-0 220282-93-9				
	220282-94-0				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(skin preps. contg. chromanol glycosides)				
RE.CNT	9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD				
RE					
	(1) Beiersdorf Aktiengesellschaft; DE 19504398 A1 HCAPLUS				
	(2) Beiersdorf Aktiengesellschaft; EP 726273 A1 HCAPLUS				
	(3) Beiersdorf Aktiengesellschaft; JP 967401 A				
	(4) Beiersdorf Aktiengesellschaft; US 5780445 A 1998 HCAPLUS				
	(5) CCI Corpolution; JP 07118287 A HCAPLUS				
	(6) CCI Corpolution; US 5478812 A HCAPLUS				
	(7) CCI Corpolution; US 5889164 A HCAPLUS				
	(8) CCI Corpolution; EP 611152 A1 1994 HCAPLUS				
	(9) CCI Corporation; JP 1072356 A 1998				
IT	160455-95-8 197315-53-0 220282-93-9				

220282-94-0

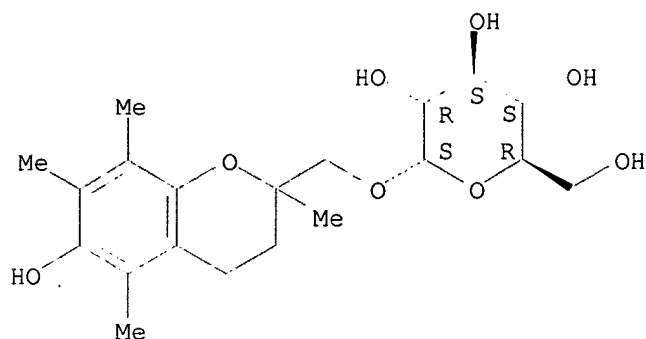
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)

(skin preps. contg. chromanol glycosides)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

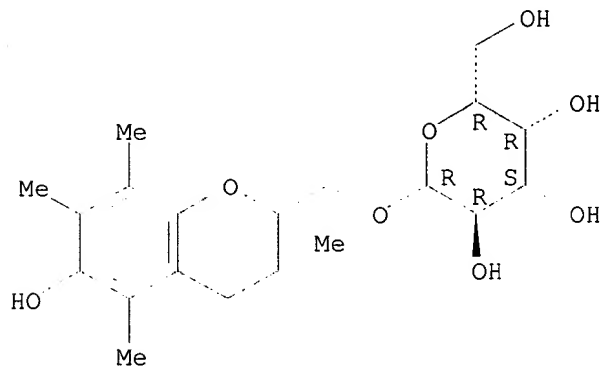
Absolute stereochemistry.



RN 197315-53-0 HCAPLUS

CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

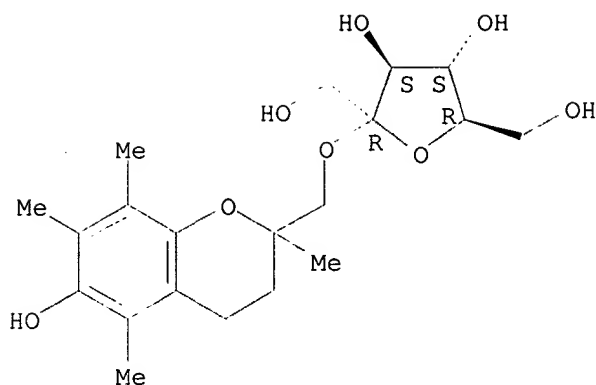
Absolute stereochemistry.



RN 220282-93-9 HCAPLUS

CN .beta.-D-Fructofuranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

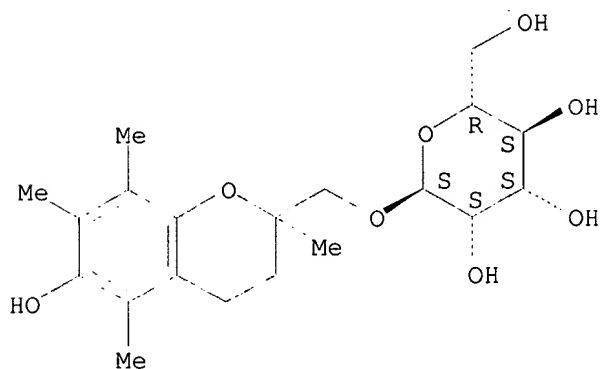
Absolute stereochemistry.



RN 220282-94-0 HCAPLUS

CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 23 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:553422 HCAPLUS

DN 133:144917

TI Chromanol glycosides as preventive and therapeutic agents for  
arteriosclerosisIN Yoshikawa, Toshikazu; Murase, Hironobu; Yoshida,  
Norimasa

PA CCI Corporation, Japan

SO PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A61K031-7048

ICS A61P009-10

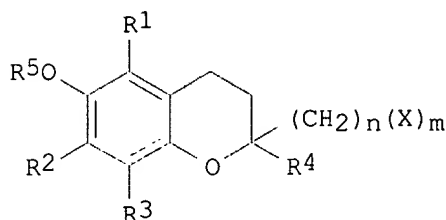
CC 1-8 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000045824	A1	20000810	WO 2000-JP531	20000201 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,				

SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 EP 1151753 A1 20011107 EP 2000-902031 20000201 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO  
 PRAI JP 1999-25392 A 19990202 <--  
 WO 2000-JP531 W 20000201 <--  
 GI



AB Preventive and therapeutic agents for **arteriosclerosis**, contg.  
 as the active ingredient chromanol glycosides represented by formula (I)  
 (wherein R1, R2, R3 and R4 are each independently hydrogen or lower alkyl;  
 R5 is hydrogen, lower alkyl or lower acyl; X is a mono- or oligosaccharide  
 residue whose hydroxyl hydrogen atoms may be replaced by lower alkyl or  
 lower acyl; n is an integer of 0 to 6; and m is an integer of 1 to 6).  
 These agents are safe and act effectively on an affected part even when  
 applied in a small dose, thus being efficacious in preventing or treating  
**arteriosclerosis**.

ST chromanol glycoside **antiartherosclerotic** cholesterol lipoprotein

IT Drug delivery systems  
 (capsules; chromanol glycosides as preventive and therapeutic agents  
 for **arteriosclerosis**)

IT **Antiartherosclerotics**  
 (chromanol glycosides as preventive and therapeutic agents for  
**arteriosclerosis**)

IT Glycosides  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (chromanol; chromanol glycosides as preventive and therapeutic agents  
 for **arteriosclerosis**)

IT Drug delivery systems  
 (granules; chromanol glycosides as preventive and therapeutic agents  
 for **arteriosclerosis**)

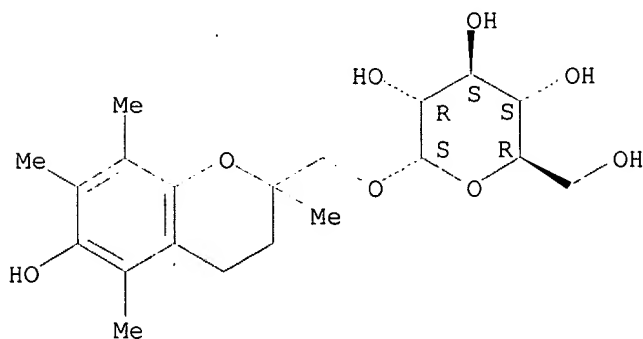
IT Lipoproteins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (high-d.; chromanol glycosides as preventive and therapeutic agents for  
**arteriosclerosis**)

IT Drug delivery systems  
 (injections; chromanol glycosides as preventive and therapeutic agents  
 for **arteriosclerosis**)

IT Lipoproteins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (low-d.; chromanol glycosides as preventive and therapeutic agents for

arteriosclerosis)  
 IT Drug delivery systems  
   (suspensions; chromanol glycosides as preventive and therapeutic agents  
   for arteriosclerosis)  
 IT Drug delivery systems  
   (tablets; chromanol glycosides as preventive and therapeutic agents for  
   arteriosclerosis)  
 IT 950-99-2D, Chromanol, glycoside derivs. 160455-95-8  
   RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
   study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
   (Uses)  
     (chromanol glycosides as preventive and therapeutic agents for  
     arteriosclerosis)  
 IT 57-88-5, Cholesterol, biological studies  
   RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
   (Biological study); PROC (Process)  
     (chromanol glycosides as preventive and therapeutic agents for  
     arteriosclerosis)  
 RE.CNT 6       THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
 (1) CCI Corporation; JP 07118287 A HCAPLUS  
 (2) CCI Corporation; US 5478812 A HCAPLUS  
 (3) CCI Corporation; EP 611152 A1 1994 HCAPLUS  
 (4) Da Silva, E; Archives of Biochemistry and Biophysics 1998, V349(2), P313  
     HCAPLUS  
 (5) Toshihiko, O; Nippon Yuka Gakkaishi 1999, V48(10), P1041  
 (6) Wuyih-Jer; Arterioscler, Thromb, Vasc Biol 1998, V18(3), P481  
 IT 160455-95-8  
   RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
   study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
   (Uses)  
     (chromanol glycosides as preventive and therapeutic agents for  
     arteriosclerosis)  
 RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-  
   benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.

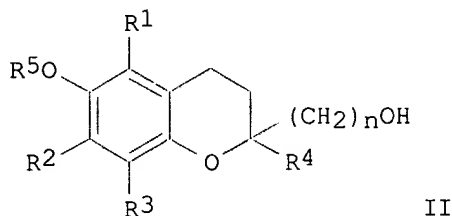
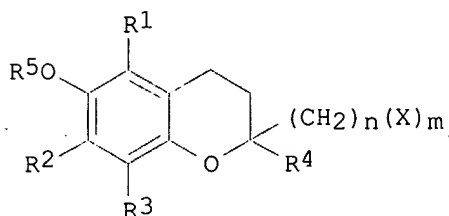


L42 ANSWER 24 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2000:388875 HCAPLUS  
 DN 133:38236  
 TI Prophylactic and therapeutic agents for vasogenic brain edema containing  
   chromanol glycosides  
 IN Murase, Hironobu; Yoshikawa, Toshikazu  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
   CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM A61K031-7048  
 ICS A61P007-10; C07H015-26; C07H017-065  
 CC 1-8 (Pharmacology)  
 Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000159676	A2	20000613	JP 1998-340539	19981130 <--
PRAI	JP 1998-340539		19981130 <--		
OS	MARPAT 133:38236				
GI					



AB The agents contain chromanol glycosides I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide or oligosaccharide residue in which H of OH group may be substituted with lower alkyl, lower acyl; n = 0-6; m = 1-6) as active ingredients. The agents may be aq. liqs.

**2-(.alpha.-D-Glucopyranosyl)**

**methyl-2,5,7,8-**

**tetramethylchroman-6-ol** suppressed edema in a rat brain freeze injury model. Pharmaceutical formulations of II were also given.

ST chromanol glycoside vasogenic brain edema treatment;  
 glucopyranosylmethylchromanol traumatic brain edema treatment

IT Drug delivery systems  
 (aq.; chromanol glycosides for treatment of vasogenic brain edema)

IT Glycosides  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chromanol glycosides for treatment of vasogenic brain edema)

IT Drug delivery systems  
 (injections; chromanol glycosides for treatment of vasogenic brain edema)

IT Brain, disease  
 (trauma, edema from; chromanol glycosides for treatment of vasogenic brain edema)

IT Brain, disease  
 (vasogenic edema; chromanol glycosides for treatment of vasogenic brain edema)

IT **160455-95-8**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chromanol glycosides for treatment of vasogenic brain edema)

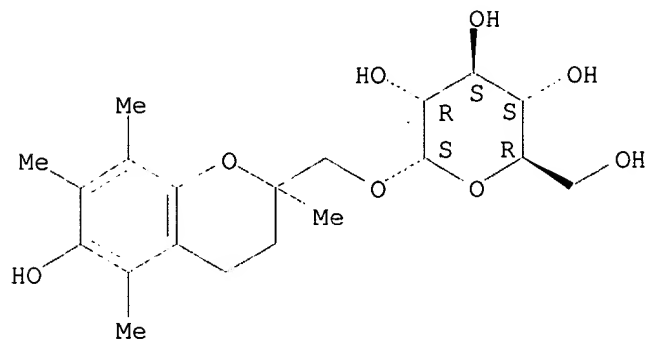
IT **160455-95-8**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chromanol glycosides for treatment of vasogenic brain edema)

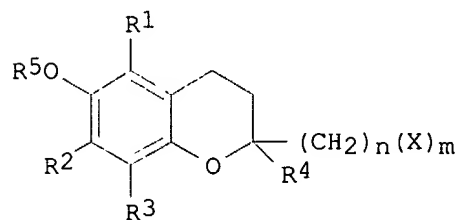
RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 25 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 2000:374759 HCAPLUS  
 DN 133:12745  
 TI Prophylactic and therapeutic agents for systemic inflammatory response syndrome, containing chromanol glycosides  
 IN **Murase, Hironobu; Yoshikawa, Toshikazu; Yoshida, Norimasa**  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61P013-00  
 ICS A61P007-02; A61P011-00; A61P043-00; C07H015-26; C07H017-065  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 63  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000154154	A2	20000606	JP 1998-327229	19981117 <--
PRAI	JP 1998-327229		19981117	<--	
OS	MARPAT 133:12745				
GI					



I

AB The agents, which show antioxidant effect and are useful for treatment of shock, adult respiratory distress syndrome, multiple organ failure, disseminated intravascular coagulation, etc., contain the chromanol glycosides I (R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide or oligosaccharide residue in which H of the OH group may be substituted with lower alkyl or lower acyl; n = 0-6; m = 1-6) as active

ingredients. The agents can be used as aq. liqs. Intravascular administration of a physiol. saline soln. of 2-( $\alpha$ -D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6

-ol to rats previously treated with LPS suppressed airway microvascular injury and increased cumulative survival rate.

ST antioxidant chromanol glycoside treatment systemic inflammatory response syndrome; ARDS treatment antioxidant chromanol glycoside; multiple organ failure treatment antioxidant chromanol glycoside; shock treatment antioxidant chromanol glycoside; disseminated intravascular coagulation treatment antioxidant chromanol glycoside

IT Respiratory distress syndrome  
(adult; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Multiple organ failure  
Shock (circulatory collapse)  
(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Glycosides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Drug delivery systems  
(aq.; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Blood coagulation  
(disseminated intravascular; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Antioxidants  
(pharmaceutical; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT Inflammation  
(systemic inflammatory response syndrome; antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

IT 160455-95-8  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

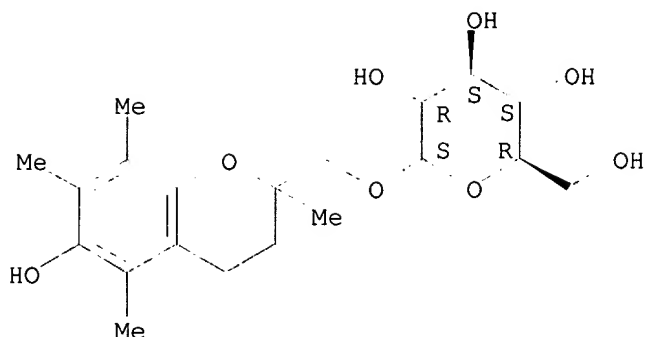
IT 160455-95-8  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antioxidant chromanol glycosides for treatment of systemic inflammatory response syndrome)

RN 160455-95-8 HCAPLUS

CN  $\alpha$ -D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 26 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:373906 HCAPLUS

DN 133:134625

TI A novel water-soluble vitamin E derivative protects against experimental colitis in rats

AU Yoshida, Norimasa; Yoshikawa, Toshikazu; Yamaguchi, Taiji; Naito, Yuji; Tanigawa, Toru; Murase, Hironobu; Kondo, Motoharu

CS First Department of Internal Medicine, Kyoto Prefectural University of Medicine, Kyoto, 602-8566, Japan

SO Antioxidants & Redox Signaling (1999), 1(4), 555-562  
CODEN: ARSIF2; ISSN: 1523-0864

PB Mary Ann Liebert

DT Journal

LA English

CC 18-2 (Animal Nutrition)

Section cross-reference(s): 14

AB The effects of water-sol. vitamin E deriv. 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-

ol (TMG) on exptl. colitis were investigated in male Wistar rats. Colitis was induced in rats weighing .apprx.200 g by an enema of trinitrobenzenesulfonic acid (TNBS) dissolved in 50% ethanol. TMG dissolved in physiol. saline (0.2, 2, and 20 mg/mL) was injected i.p. (1 mL) every day for 1 wk after the TNBS enema. The damage score, wet wt. of the colon, and increase in body wt. were estd. 1 wk after the enema. Thiobarbituric acid-reactive substances (TBARS), an index of lipid peroxidn., and the levels of .alpha.-tocopherol or TMG in the colonic mucosa were measured 1 wk after the induction of colitis. Body wt. increase was inhibited by the induction of colitis, although the inhibition was smaller in rats treated with TMG. The damage score, wet wt., and TBARS were increased in the colitis group, but were inhibited by TMG. The .alpha.-tocopherol levels in the colonic mucosa were decreased by the induction of colitis, whereas TMG was not detected in the colonic mucosa of rats treated with TMG. Thus, TMG is effective for the treatment of colitis induced by TNBS in rats.

ST nutrition vitamin E deriv colitis treatment

IT Intestine, disease

(colitis; vitamin E deriv. protects against exptl. colitis in rats)

IT Peroxidation

(lipid; vitamin E deriv. protects against exptl. colitis in rats)

IT Nutrition, animal

(vitamin E deriv. protects against exptl. colitis in rats)

IT 160455-95-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(vitamin E deriv. protects against exptl. colitis in rats)

IT 59-02-9, .alpha. Tocopherol

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(vitamin E deriv. protects against exptl. colitis in rats)

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Abe, K; J Nutr Sci Vitaminol 1975, V21, P183 HCAPLUS
- (2) Allgayer, H; Klin Wochenschr 1991, V15, P1001
- (3) Babbs, C; Free Radic Biol Med 1992, V13, P169 MEDLINE
- (4) Bousvaros, A; J Pediatr Gastroenterol Nutr 1998, V26, P29
- (5) Buffinton, G; Free Radic Biol Med 1995, V19, P911 HCAPLUS
- (6) Burton, G; Lancet 1982, V8293, P327
- (7) Drevon, C; Vitamin E--Its usefulness in Health and in Curing Diseases 1993, P65 HCAPLUS
- (8) Emerit, J; Free Radic Res Commun 1991, V12-13(Pt 2), P563
- (9) Fukuzawa, K; Arch Biochem Biophys 1983, V226, P242 HCAPLUS
- (10) Grisham, M; Gastroenterology 1991, V101, P540 HCAPLUS
- (11) Kitahora, T; Dig Dis Sci 1998, V33, P951
- (12) Lih-Brody, L; Dig Dis Sci 1996, V41, P2078 HCAPLUS
- (13) Morris, G; Gastroenterology 1989, V96, P795 MEDLINE
- (14) Mukai, K; J Org Chem 1991, V56, P4188 HCAPLUS
- (15) Murase, H; Free Radic Biol Med 1998, V24, P217 HCAPLUS
- (16) Murase, H; Lipids 1997, V32, P73 HCAPLUS
- (17) Niki, E; J Biol Chem 1984, V259, P4177 HCAPLUS
- (18) Nishikimi, M; Biochim Biophys Acta 1980, V627, P101 HCAPLUS
- (19) Ohkawa, H; Anal Biochem 1979, V95, P351 HCAPLUS
- (20) Palmen, M; Clin Exp Immunol 1995, V101, P351 HCAPLUS
- (21) Siems, W; Cell Mol Biol 1992, V38, P189 HCAPLUS
- (22) Simmonds, N; Gastroenterology 1992, V103, P186 HCAPLUS
- (23) Suematsu, M; J Clin Lab Immunol 1987, V24, P125 HCAPLUS
- (24) Yamada, T; Gastroenterology 1992, V102, P1524 HCAPLUS
- (25) Yamauchi, R; Agric Biol Chem 1977, V41, P1425 HCAPLUS
- (26) Yoshikawa, T; Digestion 1997, V58, P464 HCAPLUS
- (27) Yoshikawa, T; Free Radicals and Aging 1992, P353 HCAPLUS

IT 160455-95-8

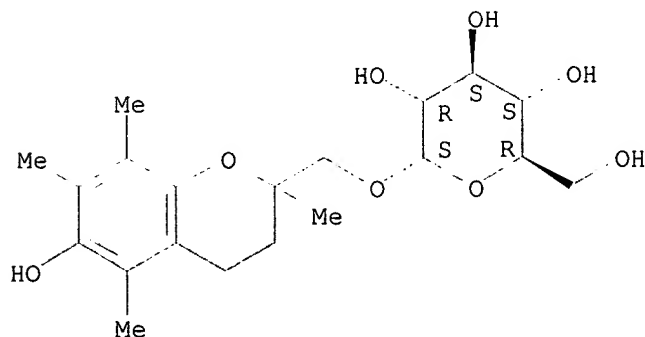
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)

(vitamin E deriv. protects against exptl. colitis in rats)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

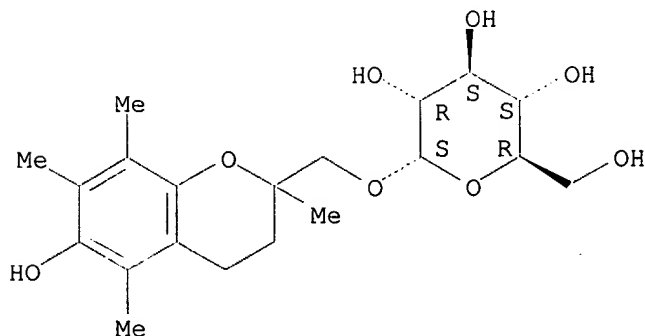
Absolute stereochemistry.



DN 132:26858  
 TI Chromanol glycoside as preventive and therapeutic agent for eye disease  
 IN **Murase, Hironobu**; Fujii, Toshiaki; Kunieda, Tsutomu  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K031-70  
 ICS A61K031-00; C07H015-26; C07H017-065  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 1  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11343241	A2	19991214	JP 1999-93875	19990331 <--
PRAI	JP 1998-87065		19980331	<--	
OS	MARPAT 132:26858				
AB	Chromanol glycoside or related compd. as preventive and therapeutic agent for eye disease [i.e. cataract] is claimed. An eye drop contained chromanol glycoside 200, glucose 100 mg and purified water to 2 mL.				
ST	eye drop chromanol glycoside cataract				
IT	Cataract				
	Eye, disease				
	(chromanol glycoside as preventive and therapeutic agent for eye disease)				
IT	Drug delivery systems				
	(solns., ophthalmic; chromanol glycoside as preventive and therapeutic agent for eye disease)				
IT	<b>160455-95-8</b>				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(chromanol glycoside as preventive and therapeutic agent for eye disease)				
IT	<b>160455-95-8</b>				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(chromanol glycoside as preventive and therapeutic agent for eye disease)				
RN	160455-95-8 HCAPLUS				
CN	.alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



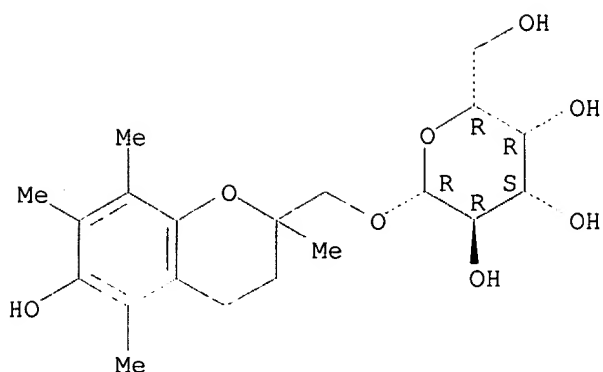
L42 ANSWER 28 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1999:650398 HCAPLUS  
 DN 131:287968  
 TI Manufacture of new chromanol glycosides  
 IN Ando, Takayuki; Kunieda, Tsutomu; **Murase, Hironobu**

PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 23 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C07H015-26  
 ICS C07H017-065; A61K031-70  
 CC 44-5 (Industrial Carbohydrates)  
 Section cross-reference(s): 33, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11279192	A2	19991012	JP 1998-75599	19980324 <--
PRAI	JP 1997-77918		19970328 <--		
	JP 1998-21115		19980202 <--		
OS	MARPAT 131:287968				
AB	The glycosides useful for treatment of inflammatory enteric disease, radiation protection, etc., are manufd. by condensing 2-hydroxy(or 2-hydroxyalkyl)-chromanol compd. with a sugar which bears a leaving group on the anomeric position and protective groups on the rest of OH groups. Dissolving 2100 mg 2,3,4-tri-O-acetyl-.alpha.-L-fucopyranosyl bromide with 1100 mg 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-acetate in 10 mL CH <sub>2</sub> Cl <sub>2</sub> , adding 3 g mol. sieve 4A, mixing at room temp. for 3 h, adding 1200 mg Ag perchlorate and 1600 mg Ag carbonate, mixing at room temp. for 24 h and working up gave 2-(.beta.-L-fucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol.				
ST	chromanol glycoside manuf; inflammatory enteric treatment chromanol glycoside				
IT	16741-27-8P, 2,3,4-Tri-O-acetyl-.alpha.-L-fucopyranosyl bromide 79907-49-6P 111094-91-8P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (intermediate; manuf. of new chromanol glycosides for pharmaceutical uses)				
IT	197315-53-0P 220282-94-0P 246262-51-1P 246262-52-2P 246262-53-3P RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (manuf. of new chromanol glycosides for pharmaceutical uses)				
IT	58-86-6, D-Xylose, reactions 59-23-4, D-Galactose, reactions 2438-80-4, L-Fucose 3458-28-4, D-Mannose 3615-41-6, L-Rhamnose RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; manuf. of new chromanol glycosides for pharmaceutical uses)				
IT	197315-53-0P 220282-94-0P 246262-51-1P 246262-52-2P 246262-53-3P RL: IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (manuf. of new chromanol glycosides for pharmaceutical uses)				
RN	197315-53-0 HCAPLUS				
CN	.beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)				

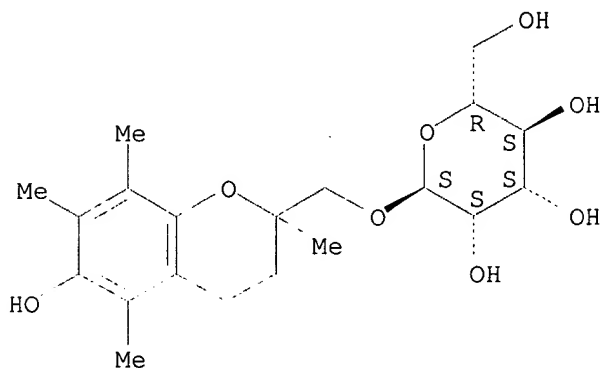
Absolute stereochemistry.



RN 220282-94-0 HCAPLUS

CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

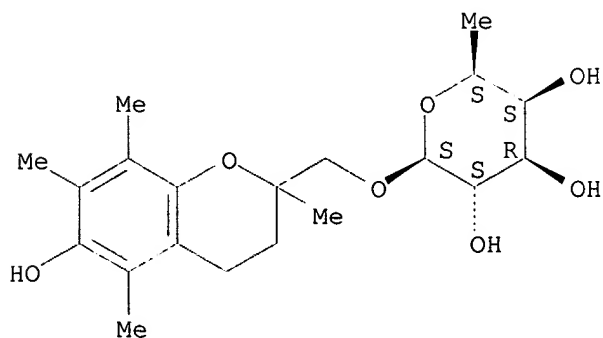
Absolute stereochemistry.



RN 246262-51-1 HCAPLUS

CN .beta.-L-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)

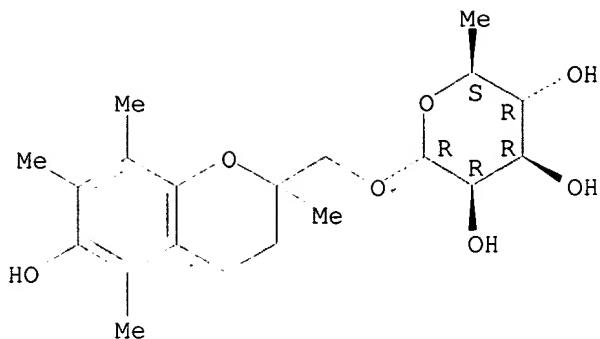
Absolute stereochemistry.



RN 246262-52-2 HCAPLUS

CN .alpha.-L-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-deoxy- (9CI) (CA INDEX NAME)

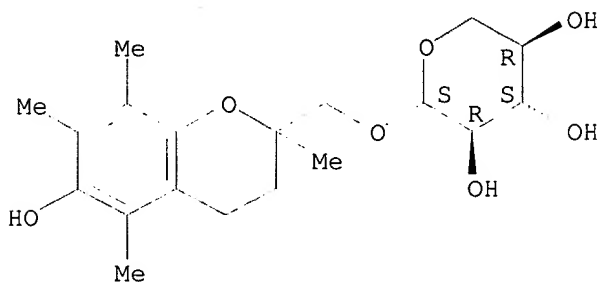
Absolute stereochemistry.



RN 246262-53-3 HCAPLUS

CN .beta.-D-Xylopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 29 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:511031 HCAPLUS

DN 131:134633

TI Preventives and remedies containing chromanol glycoside for ischemic reflow disorder

IN Yoshikawa, Toshikazu; Murase, Hironobu; Yoshida, Norimasa

PA CCI Corp., Japan

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A61K031-70

ICS C07H017-065

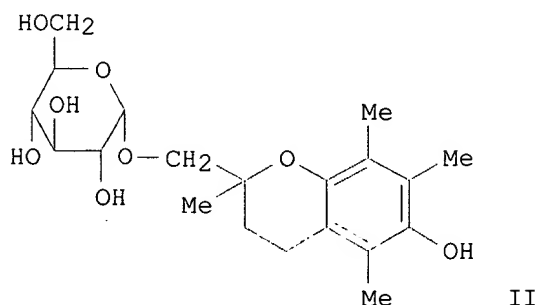
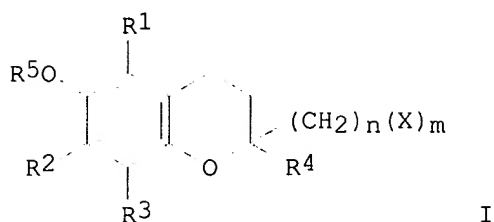
CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9939719	A1	19990812	WO 1999-JP7	19990105 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2319798	AA	19990812	CA 1999-2319798	19990105 <--
AU 9916933	A1	19990823	AU 1999-16933	19990105 <--

EP 1066832 A1 20010110 EP 1999-900037 19990105 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 US 2002128211 A1 20020912 US 2001-993194 20011114 <--  
 PRAI JP 1998-26264 A 19980206 <--  
 WO 1999-JP7 W 19990105 <--  
 US 2000-601716 B1 20000922 <--  
 OS MARPAT 131:134633  
 GI



AB Preventives and remedies for ischemic reflow disorder contg. chromanol glycosides represented by general formula (I) as the active ingredient (wherein R1, R2, R3 and R4 are the same or different and each represents hydrogen or lower alkyl; R5 represents hydrogen, lower alkyl or lower acyl; X represents a monosaccharide or oligosaccharide residue wherein hydroxylic hydrogen therein may be substituted by lower alkyl or lower acyl; n is an integer of 0 to 6; and m is an integer of 1 to 6) are described. These drugs can efficaciously and safely exert their effects on the affected parts even in a small dose to thereby prevent and treat ischemic reflow disorder in the heart, stomach, small intestine, liver, pancreas, kidney, brain, skin, organ transplantation, etc. Tablets were prepd. from 2-(.alpha.-D-glucopyranosyloxymethyl)-2,5,7,8-tetramethylchroman-6-ol (II) 100, lactose 550, corn starch 215, cryst. cellulose 130, and magnesium stearate 5 g.

ST ischemic reflow disorder chromanol glycoside

IT Brain, disease  
 Heart, disease  
 (ischemia, reperfusion; preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)

IT Reperfusion  
 (ischemic; preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)

IT Intestine, disease  
 (small, mucous membrane disorders; preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)

IT 160455-95-8  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Cci Corp; JP 08269080 A 1996 HCAPLUS
- (2) Cci Corp; JP 09249688 A 1997 HCAPLUS
- (3) Eastman Kodak Co; EP 326987 A1 HCAPLUS
- (4) Eastman Kodak Co; US 4877810 A HCAPLUS
- (5) Eastman Kodak Co; DK 8900363 A HCAPLUS
- (6) Eastman Kodak Co; AU 8929536 A HCAPLUS
- (7) Eastman Kodak Co; JP 01265022 A 1989 HCAPLUS
- (8) Murase, H; Lipids 1997, V32(1), P73 HCAPLUS
- (9) Senju Pharmaceutical Co Ltd; CA 1328810 C HCAPLUS
- (10) Senju Pharmaceutical Co Ltd; EP 324387 B1 HCAPLUS
- (11) Senju Pharmaceutical Co Ltd; US 4948786 A HCAPLUS
- (12) Senju Pharmaceutical Co Ltd; DE 68914292 E
- (13) Senju Pharmaceutical Co Ltd; JP 02111722 A 1990 HCAPLUS

IT 160455-95-8

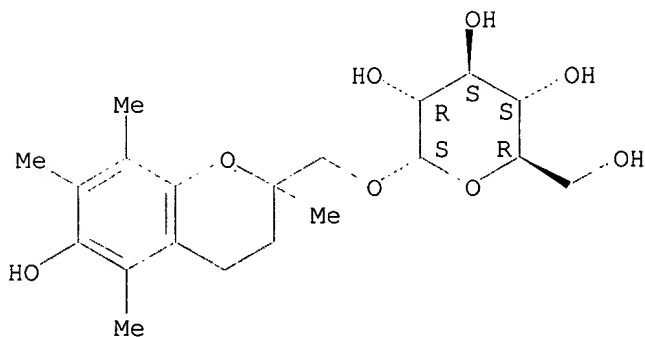
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preventives and remedies contg. chromanol glycoside for ischemic reflow disorder)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 30 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:65328 HCAPLUS

DN 130:152654

TI Chromanol glycosides as antioxidants or radioprotectants and their enzymic manufacture

IN Murase, Hronobu; Kunieda, Tsutomu

PA CCI Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07H015-26

ICS C07H017-065; C08B037-00; C12P019-44; A61K031-70; A61K031-715

CC 16-2 (Fermentation and Bioindustrial Chemistry)

Section cross-reference(s): 1, 8, 63

FAN.CNT 1

PATENT NO.

KIND DATE

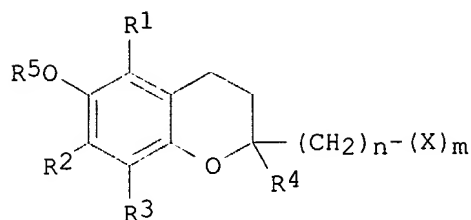
APPLICATION NO.

DATE

```

-----
PI    JP 11021291      A2    19990126      JP 1997-176174      19970701 <--
PRAI  JP 1997-176174      19970701 <--
OS    MARPAT 130:152654
GI

```



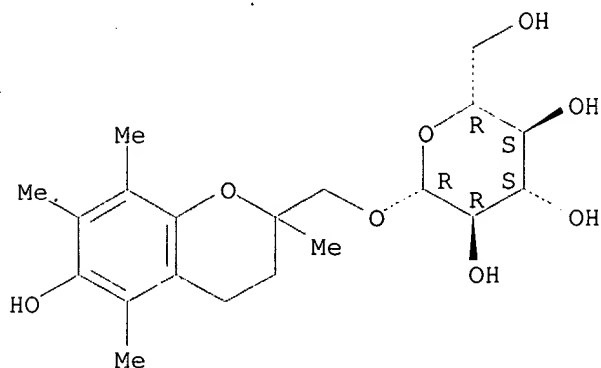
- AB Title compds. I [R1-R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = mono- or oligosaccharide residue of (substituted) .beta.-glucose, fructose, mannose, or galactose; n = 0-4; m = 1-6] are manufd. by reaction of I (Xm = OH) with sugars chosen from cellobiose, curdlan, laminaran, melibiose, raffinose, lactose, arabinogalactan, sucrose, inulin, and Me mannopyranoside in the presence of corresponding transglycosylation enzymes. A mixt. of 220 mL 5% I (R1-R4 = Me, R5 = H, Xm = OH, n = 1)/DMSO and 1100 mL 30% cellobiose/acetate buffer was treated with .beta.-glucosidase at 50.degree. for 20 h to give .apprx.500 mg I (R1-R4 = Me, R5 = H, Xm = .beta.-D-glucopyranosyl, n = 1), which in vitro showed 20% inhibition of 2,2'-azobis(2-amidinopropane).2HCl-initiated oxidn. of human HepG2 cell membranes.
- ST chromanol glycoside manuf enzyme antioxidant radioprotectant; glucosidase  
chromanol glycoside manuf antioxidant radioprotectant
- IT Antioxidants  
Radioprotectants  
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)
- IT 220282-91-7P 220282-92-8P 220282-93-9P  
220282-94-0P  
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)
- IT 9001-22-3, .beta.-Glucosidase 9001-57-4, Invertase 9025-42-7, .alpha.-Mannosidase 9031-11-2, .beta.-Galactosidase  
RL: CAT (Catalyst use); USES (Uses)  
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)
- IT 57-50-1, Sucrose, reactions 63-42-3, Lactose 512-69-6, Raffinose 528-50-7, Cellobiose 585-99-9, Melibiose 9005-80-5, Inulin 9008-22-4, Laminaran 9036-66-2, Arabinogalactan 51023-63-3, Mannopyranoside, methyl- 54724-00-4, Curdlan 79907-48-5 79907-49-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(enzymic manuf. of chromanol glycosides as antioxidants or radioprotectants)
- IT 220282-91-7P 220282-92-8P 220282-93-9P  
220282-94-0P  
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(enzymic manuf. of chromanol glycosides as antioxidants or

radioprotectants)

RN 220282-91-7 HCAPLUS

CN .beta.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

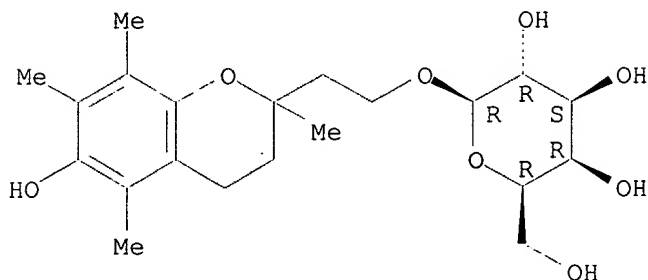
Absolute stereochemistry.



RN 220282-92-8 HCAPLUS

CN .beta.-D-Galactopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)

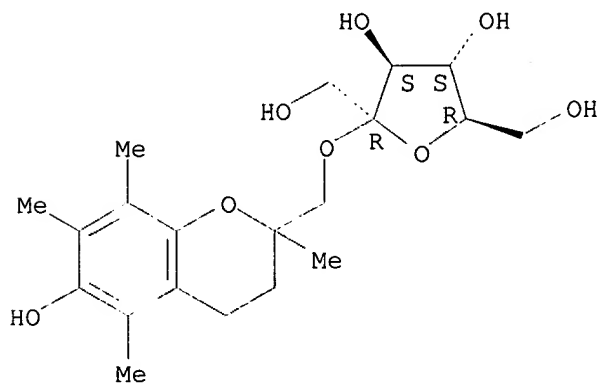
Absolute stereochemistry.



RN 220282-93-9 HCAPLUS

CN .beta.-D-Fructofuranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

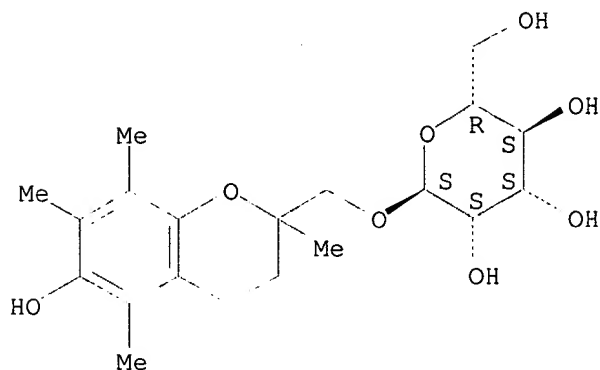
Absolute stereochemistry.



RN 220282-94-0 HCAPLUS

CN .alpha.-D-Mannopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 31 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:402325 HCAPLUS

DN 129:76508

TI Prophylactic and therapeutic agent for inflammatory intestinal diseases

IN Yoshikawa, Toshikazu; Yoshida, Norimasa; Murase, Hironobu

PA CCI Corp., Japan; Yoshikawa, Toshikazu; Yoshida, Norimasa; Murase, Hironobu

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM A61K031-70

ICS A61K009-08; C07H015-26

CC 1-9 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9825629	A1	19980618	WO 1997-JP4544	19971210 <--
	W: CA, CN, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 10168095	A2	19980623	JP 1996-329901	19961210 <--
	EP 965344	A1	19991222	EP 1997-947879	19971210 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1245430	A	20000223	CN 1997-181590	19971210 <--
	KR 2000057457	A	20000915	KR 1999-705092	19990608 <--
	US 6174864	B1	20010116	US 1999-319647	19990809 <--
PRAI	JP 1996-329901	A	19961210	<--	
	WO 1997-JP4544	W	19971210	<--	

OS MARPAT 129:76508

AB The invention relates to a prophylactic and therapeutic agent for inflammatory intestinal diseases comprising as the active ingredient a chromanol glucoside. Since it contains as the active ingredient the chromanol glucoside which is sol. in water and possesses excellent antioxidn. activity and anti-free radical activity, it can significantly prevent any pathol. change in inflammatory intestinal diseases and markedly improve the pathol. Further, it can be made into an aq. prepn. contg. the active ingredient in a high concn. and the aq. prepn. can effectively act in a small amt. on the affected part to prevent or treat inflammatory intestinal diseases and, since no side effect accompanies,

can be very safely used.

ST inflammatory intestinal disease chromanol glucoside

IT Intestine, disease

(Crohn's; prophylactic and therapeutic agent for inflammatory intestinal diseases)

IT Intestine, disease

(colitis, ulcerous; prophylactic and therapeutic agent for inflammatory intestinal diseases)

IT Intestine, disease

(inflammatory; prophylactic and therapeutic agent for inflammatory intestinal diseases)

IT Anti-inflammatory agents

(prophylactic and therapeutic agent for inflammatory intestinal diseases)

IT 950-99-2D, Chromanol, glucoside **160455-95-8**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prophylactic and therapeutic agent for inflammatory intestinal diseases)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Bayer Ag; JP 08253466 A 1996 HCAPLUS

(2) Bayer Ag; EP 731099 A 1996 HCAPLUS

(3) CCI Corp; JP 07118287 A 1995 HCAPLUS

(4) CCI Corp; EP 611152 A 1995 HCAPLUS

(5) Eisai Co Ltd; JP 05246847 A 1993 HCAPLUS

(6) Eli Lilly And Co; JP 06157310 A 1994 HCAPLUS

(7) Eli Lilly And Co; US 5294630 A 1994 HCAPLUS

(8) Eli Lilly And Co; EP 578477 A 1994 HCAPLUS

(9) Ono Pharmaceutical Co Ltd; JP 07112980 A 1995 HCAPLUS

(10) Ono Pharmaceutical Co Ltd; JP 07316150 A 1995 HCAPLUS

(11) Ono Pharmaceutical Co Ltd; EP 640609 A 1995 HCAPLUS

(12) Otsuka Pharmaceutical Co Ltd; US 5639770 A 1994 HCAPLUS

(13) Otsuka Pharmaceutical Co Ltd; EP 600092 A 1994 HCAPLUS

(14) Otsuka Pharmaceutical Co Ltd; JP 665222 A 1994

(15) Otsuka Pharmaceutical Co Ltd; WO 9324472 A 1994 HCAPLUS

(16) Sepracor Inc; JP 08510253 A 1996

(17) Sepracor Inc; US 5629337 A 1996 HCAPLUS

(18) Sepracor Inc; EP 711159 A 1996 HCAPLUS

(19) Sepracor Inc; WO 9426259 A 1996 HCAPLUS

(20) Teijin Ltd; JP 05294834 A 1993 HCAPLUS

IT **160455-95-8**

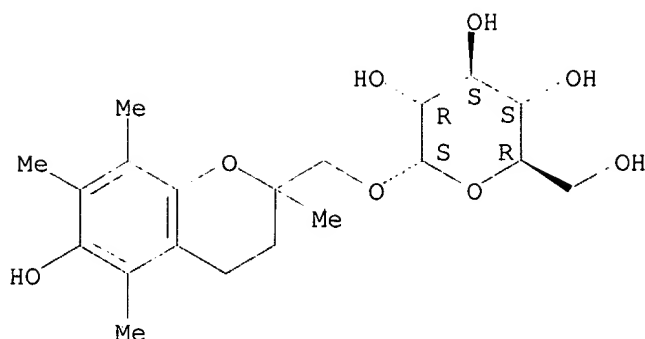
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(prophylactic and therapeutic agent for inflammatory intestinal diseases)

RN 160455-95-8 HCAPLUS

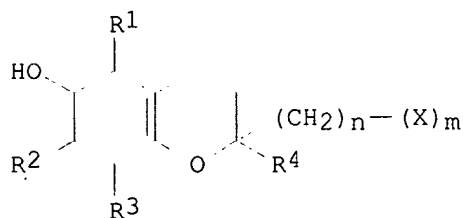
CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 32 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1998:176292 HCAPLUS  
 DN 128:267792  
 TI Radioprotectants containing chromanol glycosides.  
 IN Kunugida, Naoki; Goncharova, Tatyana; Norimura, Toshiyuki; Kagitani, Tsutomu; **Murase, Hironobu**  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K031-70  
 ICS A61K009-08; C07H015-26; C12P019-58; C12P019-60  
 CC 8-9 (Radiation Biochemistry)  
 Section cross-reference(s): 63  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10072356	A2	19980317	JP 1996-229874	19960830 <--
PRAI	JP 1996-229874		19960830 <--		
OS	MARPAT 128:267792				
GI					



AB The radioprotectants contain chromanol glycosides I (R1 - R4 = H, lower alkyl; X = monosaccharide residue which may be O-substituted with lower alkyl, lower acyl; n = 0-6; m = 1-6) as active ingredients. The radioprotectants may be in the forms of aq. liqs. Preincubation of mouse T lymphoma EL-4 cells in a medium contg. I (R1 = R2 = R3 = R4 = Me, X = .alpha.-D-glucopyranosyl, m = n = 1) (II) dose-dependently suppressed micronucleus formation upon x-ray irradiation. An i.p. injection of I was also formulated.

ST chromanol glucoside radioprotectant  
 IT Radioprotectants  
 (radioprotectants contg. chromanol glycosides)  
 IT Glycosides

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(radioprotectants contg. chromanol glycosides)

IT 41903-66-6D, Chromanol, glycosides 160455-95-8  
160455-97-0 197315-53-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(radioprotectants contg. chromanol glycosides)

IT 160455-95-8 160455-97-0 197315-53-0

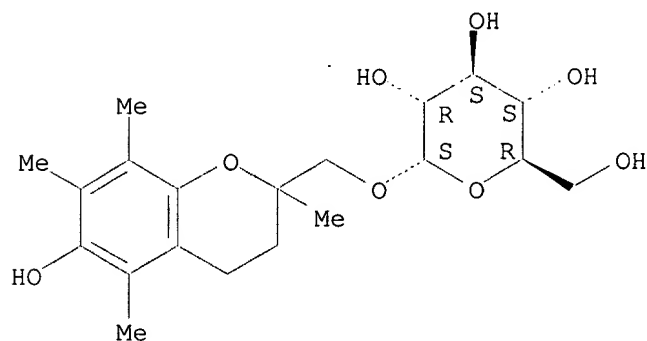
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(radioprotectants contg. chromanol glycosides)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

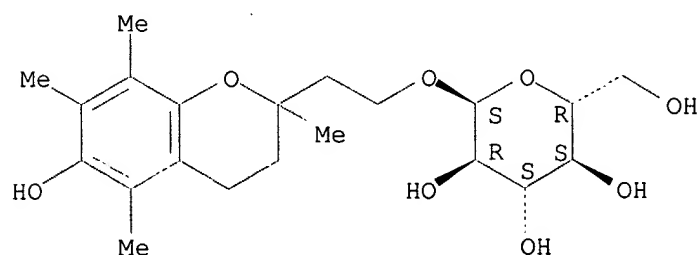
Absolute stereochemistry.



RN 160455-97-0 HCAPLUS

CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)

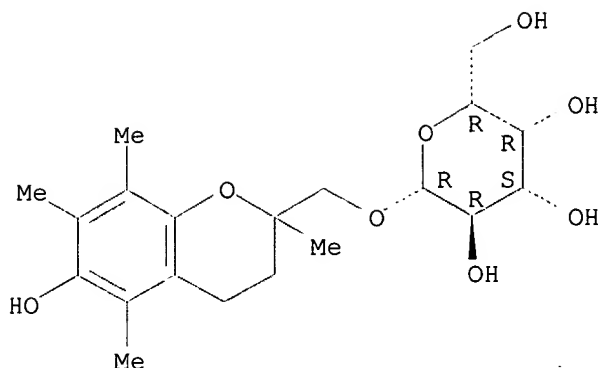
Absolute stereochemistry.



RN 197315-53-0 HCAPLUS

CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 33 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:147988 HCAPLUS

DN 128:243254

TI Antioxidant effects of novel water-soluble vitamin E derivatives (chromanol glycoside) on human blood plasma

AU Bun, Saikaku; Terao, Junji; Yamauchi, Ryo; Murase, Hironobu; Kato, Koji; Kunieda, Tsutomu.

CS Natl. Food. Res. Inst., Minist. Agric. Forest. Fish., Japan

SO Bitamin E Kenkyu no Shinpo (1997), 7, 77-83

CODEN: BKSHT

PB Kyoritsu Shuppan

DT Journal

LA Japanese

CC 18-2 (Animal Nutrition)

Section cross-reference(s): 13

AB 2-(.alpha.-D-glucopyranosyl)

methyl-2,5,7,8-

tetramethylchroman-6-ol [TMG], a vitamin E

deriv., showed antioxidant activity in human blood plasma. Formation of cholesterol ester hydroxyl oxide was used as an indicator for lipid oxidn. in blood plasma. TMG was more stable than ascorbic acid in blood.

ST chromanol glycoside antioxidant blood plasma; vitamin E deriv chromanol glycoside

IT Antioxidants

Blood plasma

(antioxidant effects of novel water-sol. vitamin E deriv. (chromanol glycoside) on human blood plasma)

IT 1406-18-4D, Vitamin e, deriv. 160455-95-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antioxidant effects of novel water-sol. vitamin E deriv. (chromanol glycoside) on human blood plasma)

IT 160455-95-8

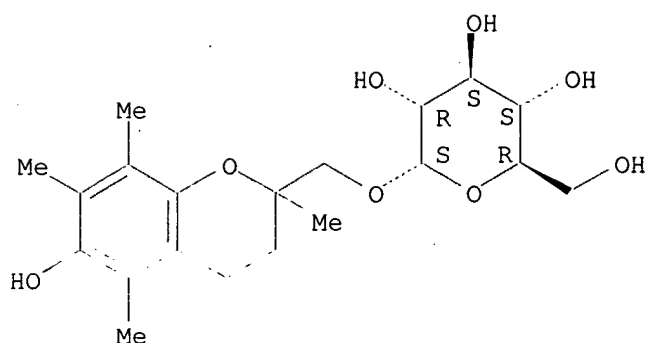
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antioxidant effects of novel water-sol. vitamin E deriv. (chromanol glycoside) on human blood plasma)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 34 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:800026 HCAPLUS

DN 128:127403

TI Antioxidant activity of a novel vitamin E derivative, 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol

AU Murase, Hironobu; Moon, Jae-Hak; Yamauchi, Ryo; Kato, Koji; Kunieda, Tsutomu; Yoshikawa, Toshikazu; Terao, Junji

CS The United Graduate School of Agricultural Sciences, Gifu University, Gifu, 501-11, Japan

SO Free Radical Biology & Medicine (1997), Volume Date 1998, 24(2), 217-225

CODEN: FRBMEH; ISSN: 0891-5849

PB Elsevier Science Inc.

DT Journal

LA English

CC 18-2 (Animal Nutrition)

AB A novel vitamin E deriv., 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol (TMG),

has excellent water-sol. (> 1 .times. 103 mg/mL). The antioxidant activity of TMG was investigated. Kinetic studies of the inhibition of radical-chain reaction of Me linoleate in soln. demonstrated that the peroxy radical-scavenging activity was not changed by the replacement of the phytyl side chain of vitamin E by a glucosyl group. TMG acted as an effective inhibitor on lipid peroxidn. of egg yolk phosphatidylcholine (PC)-liposomal suspension induced by a water-sol. and a lipid-sol. radical generator, 2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH) and 2,2'-azobis(2,4-dimethylvaleronitrile) (AMVN). Its effectiveness was higher than that of ascorbic acid (AsA) when liposomal suspension was exposed to a lipid-sol. radical generator, AMVN. TMG also showed an excellent antioxidant activity on cupric ion-induced lipid peroxidn. of PC-liposomal suspension, and suppressed the oxidn. of rat brain homogenate which contained a trace level of iron. On the other hand, AsA acted as a prooxidant on both the cupric ion-induced liposomal peroxidn. and the oxidn. of rat brain homogenate. When human plasma was exposed to either AAPH or AMVN, the accumulation of cholesteryl ester hydroperoxides was retarded by the addn. of TMG.

ST vitamin E activity antioxidant glucopyranosylmethyltetramethylchromanol; chromanol glucopyranosylmethyltetramethyl vitamin E activity; tetramethylchromanol glucopyranosylmethyl vitamin E activity

IT Antioxidants

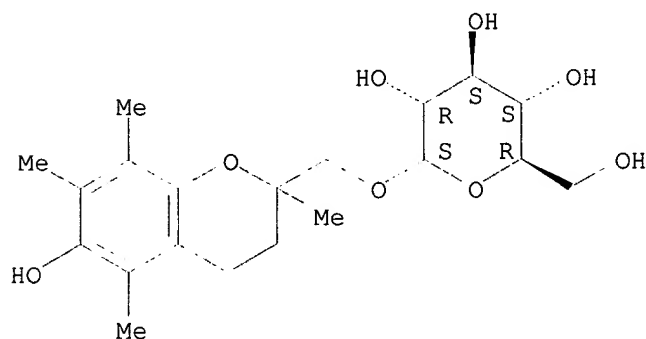
(Antioxidant activity of a novel vitamin E deriv., 2-(.alpha.-D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol)

IT 1406-18-4D, Vitamin E, derivs. 160455-95-8  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (Antioxidant activity of a novel vitamin E deriv., 2-(  
 .alpha.-D-glucopyranosyl)methyl-  
 2,5,7,8-  
 tetramethylchroman-6-ol)

IT 160455-95-8  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (Antioxidant activity of a novel vitamin E deriv., 2-(  
 .alpha.-D-glucopyranosyl)methyl-  
 2,5,7,8-  
 tetramethylchroman-6-ol)

RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

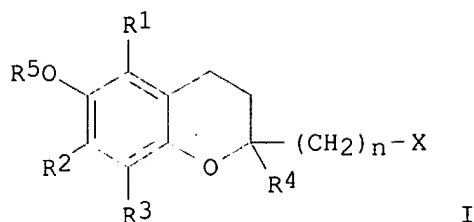
Absolute stereochemistry.



L42 ANSWER 35 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1997:797956 HCAPLUS  
 DN 128:87914  
 TI Production method of the glycoside by the immobilized enzyme.  
 IN Kunieda, Tsutomu; Murase, Hironobu  
 PA CCI Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C12P019-44  
 ICS C07H001-00; C07H015-26; C07H017-065; C12N011-02  
 CC 16-2 (Fermentation and Bioindustrial Chemistry)  
 Section cross-reference(s): 7

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09313196	A2	19971209	JP 1997-16756	19970130 <--
PRAI	JP 1996-72843		19960327	<--	
OS	MARPAT 128:87914				
GI					



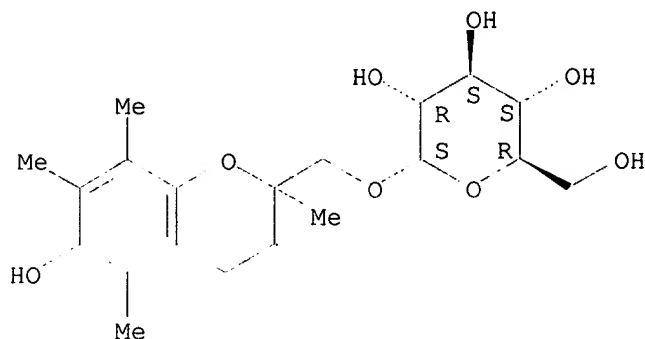
- AB Physiol. active substances that have poor soly. are glycosylated with sugar transferase immobilized on porous chitosan bead to manuf. glycosylated physiol. active substances, such as chromanol glycosides (I: R1-4 = H or lower alkyl; R5 = H, lower alkyl, or lower acyl; X = glucose residue or derivs.; n = 0-4) that have excellent water soly. The physiol. active substances contain OH group(s). Crosslinking agents greatly improve the stability of the immobilized enzyme. The immobilized enzyme is stable in org. solvents. Prepn. of immobilized .alpha.-glucosidase and manuf. of one I were shown.
- ST chromanol glycoside manuf immobilized glucosidase; chitosan carrier glycosylation enzyme chromanol glycoside
- IT Glycosides  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(chromanol; prodn. method of chromanol glycoside by immobilized enzyme)
- IT Solvents  
(org.; prodn. method of chromanol glycoside by immobilized enzyme)
- IT Bacillus stearothermophilus  
Crosslinking agents  
Immobilization, biochemical  
Saccharomyces  
(prodn. method of chromanol glycoside by immobilized enzyme)
- IT 9012-76-4, Chitosan  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(porous bead of; prodn. method of chromanol glycoside by immobilized enzyme)
- IT **160455-95-8P**  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prodn. method of chromanol glycoside by immobilized enzyme)
- IT 69-79-4, Maltose 79907-49-6  
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)  
(prodn. method of chromanol glycoside by immobilized enzyme)
- IT 616-42-2, Dimethoxysulfoxide  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(prodn. method of chromanol glycoside by immobilized enzyme)
- IT 111-30-8, Glutaraldehyde 141489-60-3, Chitopearl bcw-3010 195460-22-1, Chitopearl bcw-2501 195460-23-2, Chitopearl bcw-2601 195460-25-4, Chitopearl bcw-3501  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(prodn. method of chromanol glycoside by immobilized enzyme)
- IT 9001-42-7, .alpha.-Glucosidase 9032-08-0  
RL: CAT (Catalyst use); USES (Uses)  
(prodn. method of chromanol glycoside by immobilized enzyme)
- IT **160455-95-8P**  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)

(prodn. method of chromanol glycoside by immobilized enzyme)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 36 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:640435 HCAPLUS

DN 127:307610

TI Preparation of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols

IN Murase, Hironori; Kunieda, Tsutomu

PA CCI Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07H015-26

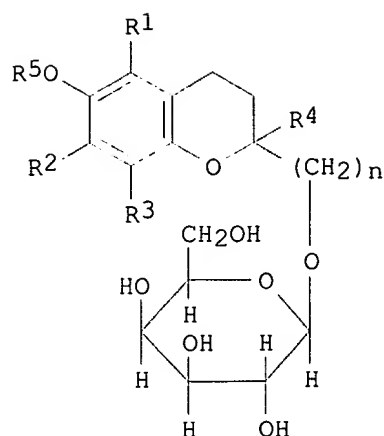
ICS A61K031-71; C07H017-065; C09K015-06; C12P019-58; C12P019-60; A23L003-3562

CC 33-3 (Carbohydrates)

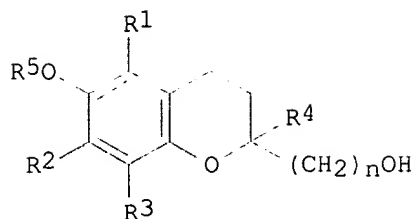
Section cross-reference(s): 17, 62, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09249688	A2	19970922	JP 1996-293590	19961106 <--
PRAI	JP 1996-3402		19960111 <--		
OS	MARPAT 127:307610				
GI					



I



II

- AB The title chromanol .beta.-galactopyranosides (I; R1 - R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; the H atoms of hydroxy groups in the sugar residue are optionally substituted with lower alkyl or acyl), which are useful as water-sol. antioxidants for food, drugs, and cosmetics, are prepd. by reacting a soln. contg. a chromanol (II; R1 - R4 = same as above) and a .beta.-galactosyl sugar compd. with .beta.-galactosidase (EC3.2.1.23). An antioxidant contg. above compd. I as the active ingredient is claimed. Thus, to a soln. of 40 (wt./vol.) % lactose in 50 mM phosphate buffer (pH 6.5, 160 mL) were added as a soln. of 5 (wt./vol.) % II (R1 - R4 = Me, R5 = H, n = 1) in DMSO (32 mL) and 1,600 U .beta.-galactosidase derived from Escherichia coli and the resulting mixt. was allowed to react at 40.degree. for 20 h to give, after column chromatog. on a column of XAD-4 resin and then a column of silica gel, .apprx.300 mg I (R1 - R4 = Me, R5 = H, n = 1). The latter compd. was more effective than L-ascorbic acid for inhibiting the radical chain autoxidn. of multilayer liposomes contg. egg yolk phosphatidylcholine by a fat-sol. radical generator, i.e. 2,2'-azobis(2,4-dimethylvaleronitrile). It showed water soly. of .apprx.1,000 mg/mL vs. 0.2 mg/mL for Trolox (Aldrich Chem. Company, U.S.A.).
- ST chromanol glycoside prepn antioxidant; lactose enzymic glycosylation chromanol
- IT Antioxidants  
Glycosylation  
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)
- IT Glycosides  
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)
- IT Cosmetics  
Drugs  
Food  
(prepn. of chromanol glycosides as antioxidants for food, cosmetics, and drugs)
- IT Glycosylation catalysts  
(.beta.-galactosidase; prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)
- IT 9031-11-2P, .beta.-Galactosidase  
RL: BPN (Biosynthetic preparation); CAT (Catalyst use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(of *Escherichia coli*; prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT 197315-53-0P

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT 63-42-3, Lactose 79907-49-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

IT 197315-53-0P

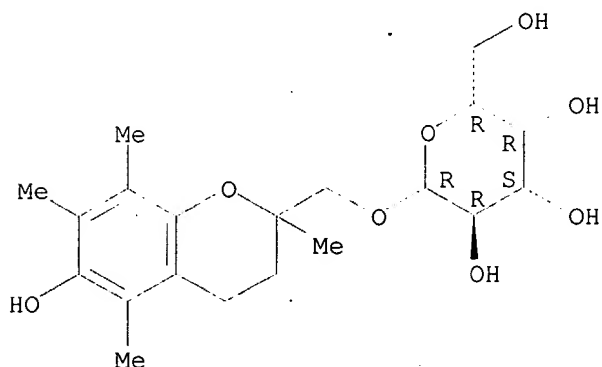
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of chromanol glycosides as antioxidants by enzymic glycosylation of chromanols with galactose-contg. sugar)

RN 197315-53-0 HCAPLUS

CN .beta.-D-Galactopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 37 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:86461 HCAPLUS

DN 126:199722

TI Synthesis of a novel vitamin E derivative, 2-(.alpha.-D-glucopyranosyl)methyl-2,3,7,8-tetramethylchroman-6-ol, by .alpha.-glucosidase-catalyzed transglycosylation

AU **Murase, Hironobu**; Yamauchi, Ryo; Kato, Koji; Kunieda, Tsutomu; Terao, Junji

CS United Graduate Sch. Agricultural Sciences, Gifu Univ., Gifu, 501-11, Japan

SO *Lipids* (1997), 32(1), 73-78

CODEN: LPDSAP; ISSN: 0024-4201

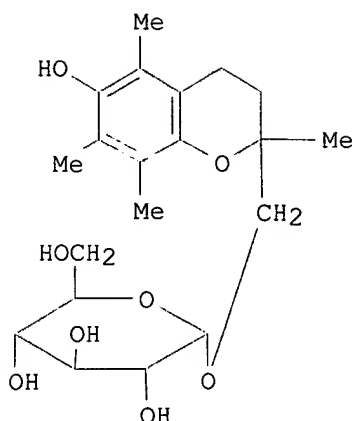
PB AOCS Press

DT Journal

LA English

CC 33-3 (Carbohydrates)

GI



- AB A novel deriv. of vitamin E, vitamin E glucoside, was synthesized from 2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol and maltose in a soln. contg. DMSO by transglycosylation with .alpha.-glucosidase from Saccharomyces species. The glycosylated product was identified as 2-(.alpha.-D-glucopyranosyl) methyl-2,5,7,8-tetramethylchroman-6-ol I (TMG) by mass spectrometry and NMR spectroscopy. The optimal pH of transglycosylation was 5.5, and the yield of TMG increased as the concn. of maltose increased. TMG has high soly. in water (>1 .times. 103 mg/mL). The 1,1-diphenyl-2-picrylhydrazyl radical scavenging activity of TMG was found to be nearly the same as those of .alpha.-tocopherol, Trolox (2-carboxy-2,5,7,8-tetramethylchroman-6-ol), and ascorbic acid.
- ST hydroxymethyltetramethylchromanol transglycosylation glucosidase maltose; glucopyranosylmethyltetramethylchromanol prepn glucosidase transglycosylation; vitamin E glucoside prepn glucosidase transglycosylation
- IT Antioxidants  
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)
- IT Transglycosylation  
(.alpha.-glucosidase-catalyzed; prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)
- IT 9001-42-7, .alpha.-Glucosidase  
RL: CAT (Catalyst use); USES (Uses)  
(from Saccharomyces sp.; prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)
- IT 9001-22-3, .beta.-Glucosidase  
RL: CAT (Catalyst use); USES (Uses)  
(from sweet almond; prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)
- IT 160455-95-8P 187799-01-5P 187799-02-6P  
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)  
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)
- IT 50-99-7, D-Glucose, reactions 59-02-9 69-79-4, Maltose 53101-49-8 53174-06-4 53188-07-1  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)
- IT 69427-83-4P 79907-49-6P 163180-79-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

IT 160455-95-8P 187799-01-5P 187799-02-6P

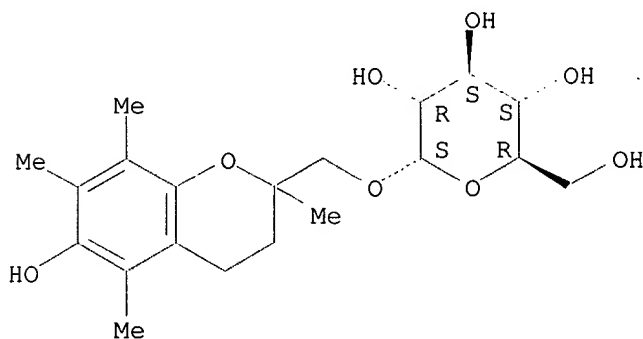
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)

(prepn. of a vitamin E deriv. via .alpha.-glucosidase catalyzed transglycosylation)

RN 160455-95-8 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

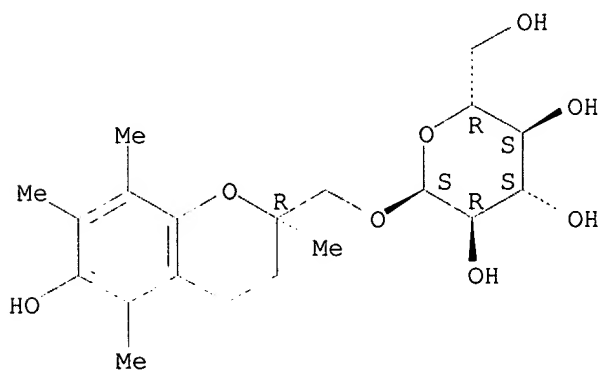
Absolute stereochemistry.



RN 187799-01-5 HCAPLUS

CN .alpha.-D-Glucopyranoside, [(2R)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

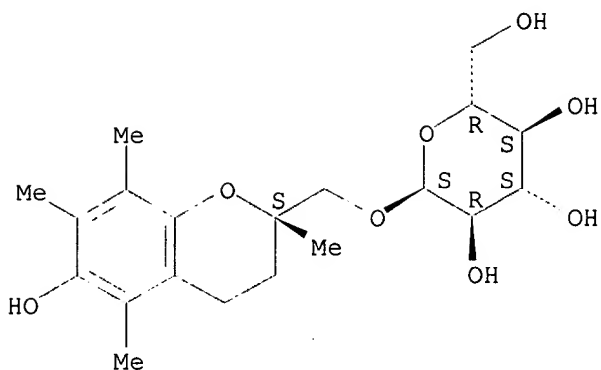
Absolute stereochemistry.



RN 187799-02-6 HCAPLUS

CN .alpha.-D-Glucopyranoside, [(2S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl]methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 38 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:12371 HCAPLUS

DN 126:75190

TI Preparation of chromanol glycosides as antioxidants

IN Murase, Hironori; Kunieda, Tsutomu

PA Shii Shii Ai Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07H015-26

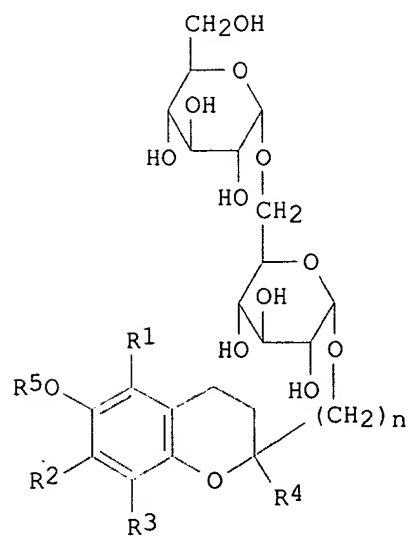
ICS C07H017-075; C09K015-06; C09K015-08; C12P019-58; C12P019-60

CC 33-9 (Carbohydrates)

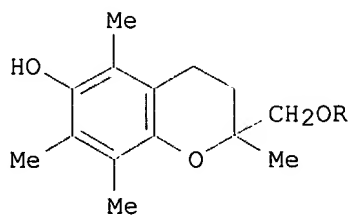
Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08269080	A2	19961015	JP 1995-77977	19950403 <--
PRAI	JP 1995-77977		19950403 <--		
OS	MARPAT 126:75190				
GI					



I



II

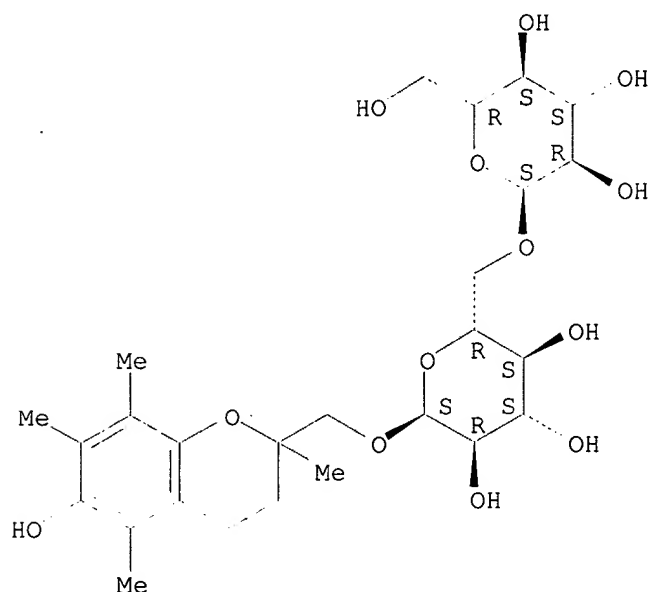
- AB The title compds. (I; R1, R2, R3, R4 = H, lower alkyl; R5 = H, lower alkyl or acyl; H atoms of sugar hydroxy groups are optionally substituted with lower alkyl or acyl; n = 0-4) are prepd. by sequential enzymic glycosidation of chromanol in the presence of .alpha.-glucosidase and .beta.-glucoamylase. I possess higher water-soly. than that of Torolox (sic), 2-substituted alc., and antioxidant activity superior to that of vitamin C. Thus, a 5% (wt./vol.) DMSO soln. of chromanol deriv. (II; R = H) (120 mL) and 800 U .alpha.-glucoamylase derived from *Bacillus stearothermophilus* were added to a 30% aq. maltose soln. (120 mL) in 50 mM phosphoric acid buffer (pH 6.0) and resulting mixt. was allowed to react at 50.degree. for 20 h, boiled for 15 min to deactivate the enzyme, treated with 2,400 U glucoamylase derived from *Rhizopus*, allowed to react at 50.degree. for 24 h, boiled for 15 min to deactivate the enzyme, and applied to a XAD-4 column. The column was eluted with 30 and 80% MeOH to give a chromanol glycoside-contg. fraction which was further purified by silica gel chromatog. to give .apprx.2,000 mg chromanylemethyl glucoside II (R = .alpha.-D-glucopyranosyl) and .apprx.1,100 mg chromanylemethyl isomaltoside I (n = 1, R1 = R2 = R3 = R4 = M2, R5 = H). The latter compd. showed water soly. of .apprx.1,000 mg/mL vs. Torolox 0.2 mg/mL and antioxidant activity more effective than ascorbic acid for inhibiting autoxidn. of multilayer liposome in the presence of 2,2'-azobis(2-amidinopropane) dihydrochloride (radical initiator).
- ST chromanol glycoside prepn antioxidant; chromanylemethyl isomaltoside prepn antioxidant; enzymic glycosidation chromanol; glucosidase glucoamylase glycosidation catalyst
- IT Antioxidants  
Glycosylation  
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
- IT Glycosylation catalysts  
(.alpha.-glucosidase and .beta.-glucoamylase; prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
- IT 9001-42-7, .alpha.-Glucosidase  
RL: CAT (Catalyst use); USES (Uses)  
(*Bacillus stearothermophilus* and *Saccharomyces*-derived; prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
- IT 9032-08-0, Glucoamylase  
RL: CAT (Catalyst use); USES (Uses)  
(*Rhizopus*-derived .beta.-glucoamylase; prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
- IT 69-79-4, Maltose  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of chromanol glycosides as antioxidants)
- IT 184843-57-0P  
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
- IT 160455-95-8P  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)
- IT 50-99-7P, Glucose, preparation  
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT 79907-49-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

IT 184843-57-0P  
 RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

RN 184843-57-0 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 6-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

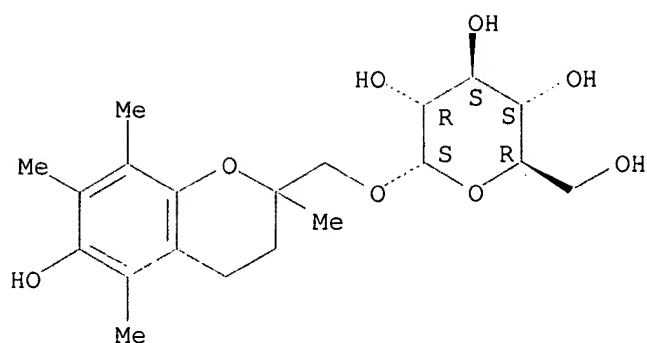
Absolute stereochemistry.



IT 160455-95-8P  
 RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prepn. of chromanol glycosides as antioxidants by enzymic glycosidation of chromanol deriv.)

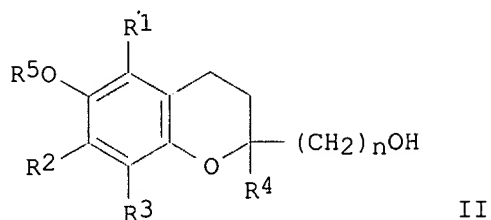
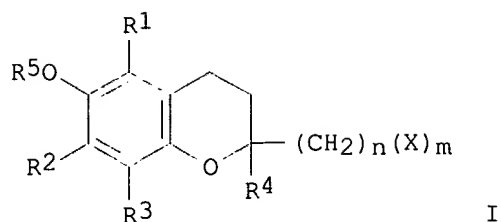
RN 160455-95-8 HCAPLUS  
 CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

Absolute stereochemistry.



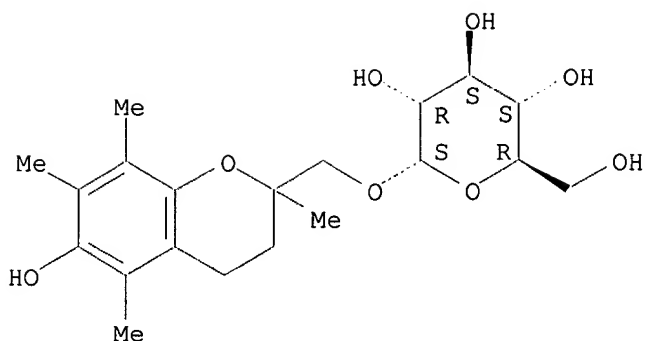
L42 ANSWER 39 OF 40 HCAPLUS COPYRIGHT 2003 ACS  
 AN 1995:308684 HCAPLUS  
 DN 122:81889  
 TI Novel chromanol glycoside and method for production thereof.  
 IN **Murase, Hironobu**; Kunieda, Tsutomu; Tsujii, Tetsuya  
 PA CCI Corp., Japan  
 SO Eur. Pat. Appl., 38 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C07H015-26  
 ICS C07H017-065; A23L003-3562; C11B005-00  
 CC 33-3 (Carbohydrates)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 611152	A1	19940817	EP 1994-300958	19940210 <--
	EP 611152	B1	19980107		
	R: DE, FR, GB				
	JP 07118287	A2	19950509	JP 1993-338083	19931228 <--
	US 5478812	A	19951226	US 1994-195113	19940210 <--
	US 5889164	A	19990330	US 1995-534409	19950927 <--
PRAI	JP 1993-23026		19930210	<--	
	JP 1993-221490		19930906	<--	
	JP 1993-338083		19931228	<--	
	US 1994-195113		19940210	<--	
OS	MARPAT 122:81889				
GI					



- AB Title compds. I (R1, R2, R3, R4 = H, lower alkyl; R5 = H, lower alkyl, lower acyl; X = monosaccharide residue, oligosaccharide residue, providing the H atom of the HO group of saccharide residue may be substituted by lower alkyl, lower acyl; n = 0-4; m = 1-6), useful as water sol. antioxidants in heat and pH stability, are prepd. by reaction of II with an oligosaccharide, (sol.)starch, cyclodextrin in presence of an enzyme catalyst for transglycosidation. Maltose and II (R1-4 = Me, R5 = H, n = 1) and .alpha.-glucosidase were reacted at 20.degree. for 20 h to give I (R1-4 = Me, R4 = H, X = .alpha.-D-glucopyranosyl, m = n = 1). Antioxidant activity was demonstrated.
- ST chromanol glycoside prepn antioxidant
- IT Antioxidants  
(prepn. of chromanol glycosides as antioxidants)
- IT Glycosides  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides as antioxidants)
- IT 9001-42-7, .alpha.-Glucosidase 9030-09-5, Cyclodextrin glucanotransferase  
RL: CAT (Catalyst use); USES (Uses)  
(prepn. of chromanol glycosides as antioxidants)
- IT 69-79-4, Maltose 10016-20-3, .alpha.-Cyclodextrin 53101-54-5  
72312-27-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(prepn. of chromanol glycosides as antioxidants)
- IT 160455-95-8P 160455-96-9P 160455-97-0P  
160455-98-1P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides as antioxidants)
- IT 160455-95-8P 160455-96-9P 160455-97-0P  
160455-98-1P  
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of chromanol glycosides as antioxidants)
- RN 160455-95-8 HCAPLUS
- CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl (9CI) (CA INDEX NAME)

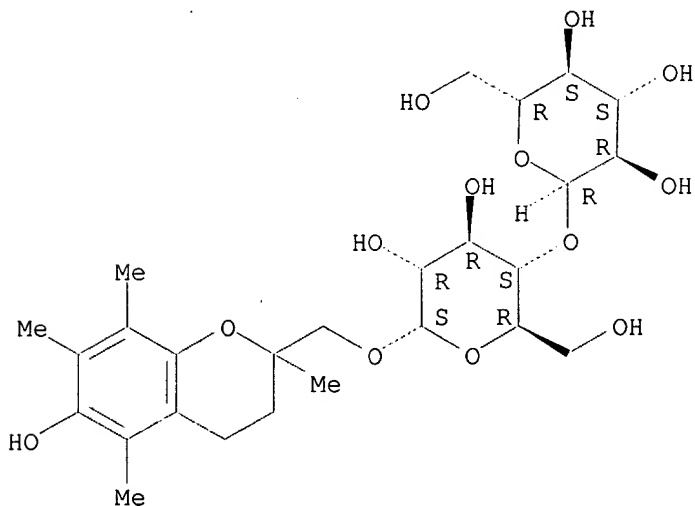
Absolute stereochemistry.



RN 160455-96-9 HCAPLUS

CN .alpha.-D-Glucopyranoside, (3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

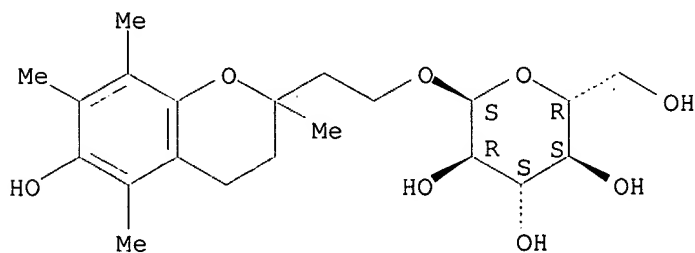
Absolute stereochemistry.



RN 160455-97-0 HCAPLUS

CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl (9CI) (CA INDEX NAME)

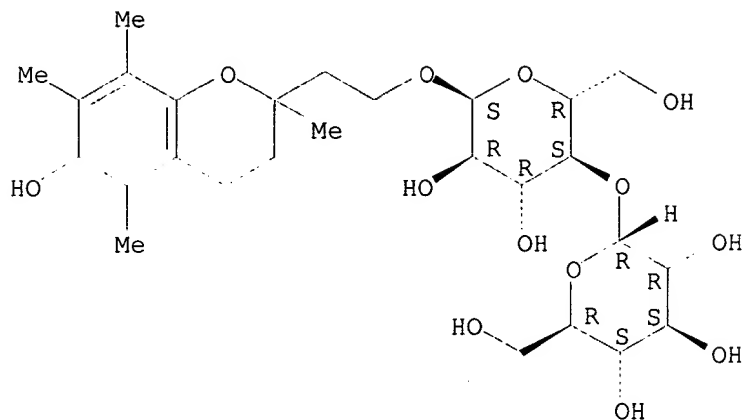
Absolute stereochemistry.



RN 160455-98-1 HCAPLUS

CN .alpha.-D-Glucopyranoside, 2-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)ethyl 4-O-.alpha.-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L42 ANSWER 40 OF 40 HCAPLUS COPYRIGHT 2003 ACS

AN 1992:598235 HCAPLUS

DN 117:198235

TI Skin-lightening cosmetics

IN Kikuchi, Hajime; Nishio, Hiroyuki; Uchiyama, Hiromi; Shirane, Miyako

PA Kanebo, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A61K007-00

ICS C07D407-12; C07D407-14

CC 62-4 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04149113	A2	19920522	JP 1990-271329	19901008 <--
PRAI	JP 1990-271329		19901008 <--		
OS	MARPAT 117:198235				

AB A skin-lightening cosmetic contains tocopherol L-ascorbic acid dicarboxylic acid diester. For example, a cosmetic consisted of .alpha.-tocopherol-L-ascorbic acid-3-succinic acid diester 3, olive oil 15, iso-Pr myristate 5, polyoxyethylene nonylphenyl ether 0.5, glycerin 5, methylparaben 0.1, EtOH 7, and water to 100% by wt.

ST skin lightening tocopherol ascorbate succinate

IT Cosmetics

(skin-lightening, tocopherol ascorbate dicarboxylic acid esters in)

IT 144088-84-6 144088-85-7 144088-86-8 **144088-87-9**

144116-08-5 144136-68-5 144144-14-9

RL: BIOL (Biological study)

(cosmetics contg., skin-lightening)

IT **144088-87-9**

RL: BIOL (Biological study)

(cosmetics contg., skin-lightening)

RN 144088-87-9 HCAPLUS

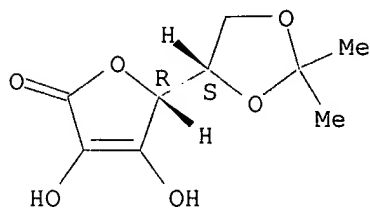
CN Galactaric acid, [3,4-dihydro-2,7,8-trimethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-yl] ester, 2-ester with 5,6-O-(1-methylethylidene)-L-ascorbic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15042-01-0

CMF C9 H12 O6

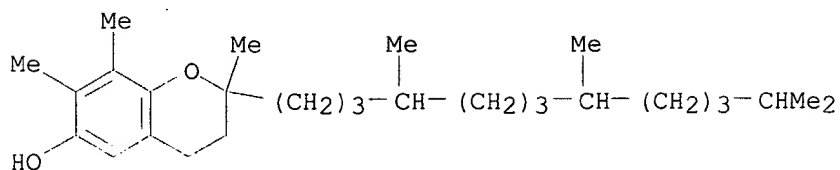
Absolute stereochemistry.



CM 2

CRN 7616-22-0

CMF C28 H48 O2

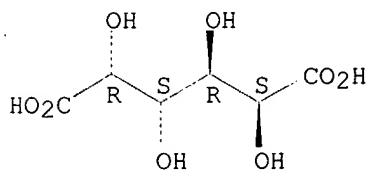


CM 3

CRN 526-99-8

CMF C6 H10 O8

Relative stereochemistry.



=&gt; fil embase

FILE 'EMBASE' ENTERED AT 18:56:09 ON 22 JAN 2003

COPYRIGHT (C) 2003 Elsevier Science B.V. All rights reserved.

FILE COVERS 1974 TO 16 Jan 2003 (20030116/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d all tot

L54 ANSWER 1 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

AN 2002143701 EMBASE

TI Inhibitory effect of a novel water-soluble vitamin E derivative on atherosclerosis in rabbits.

AU Yoshida N.; Murase H.; Kunieda T.; Toyokuni S.; Tanaka T.; Terao J.; Naito Y.; Tanigawa T.; Yoshikawa T.  
 CS N. Yoshida, First Dept. of Internal Medicine, Kyoto Prefectural Univ. of Medicine, Kawaramachi-Hirokoji, Kamigyo-ku, Kyoto 602-8566, Japan. nyoshida@koto.kpu-m.ac.jp  
 SO Atherosclerosis, (2002) 162/1 (111-117).  
 Refs: 30  
 ISSN: 0021-9150 CODEN: ATHSBL  
 PUI S 0021-9150(01)00702-X  
 CY Ireland  
 DT Journal; Article  
 FS 018 Cardiovascular Diseases and Cardiovascular Surgery  
 030 Pharmacology  
 037 Drug Literature Index  
 LA English  
 SL English  
 AB A novel vitamin E derivative that is freely soluble in water, 2-( $\alpha$ -D-glucopyranosyl)methyl-2,5,7,8-tetramethylchroman-6-ol (TMG), was evaluated for ability to inhibit development of **atherosclerosis** in Watanabe heritable hyperlipidemic (WHHL) rabbits or cholesterol-loaded New Zealand White rabbits. Although TMG rapidly entered the circulation blood after oral administration, the blood TMG concentration remained low, while neither TMG nor its metabolites appeared in the low-density lipoprotein (LDL) fraction. TMG did not decrease serum total cholesterol and the various lipoprotein-associated cholesterol fractions (very LDL-, or high-density lipoprotein- (HDL) cholesterol). TMG reduced the serum concentration of thiobarbituric acid-reactive substances (TBARS; an index of lipid peroxidation) in cholesterol-loaded rabbits but not WHHL rabbits. Nonetheless, TMG inhibited aortic **atherosclerosis** as effectively as probucol in both models. Our results indicate that TMG opposes progression of **atherosclerosis** not only by preventing oxidation of LDL, but also by presently unknown mechanisms. Even an antioxidant with no uptake by LDL apparently can inhibit development of **atherosclerosis** despite a very low serum concentration. .COPYRGHT. 2002 Elsevier Science Ireland Ltd. All rights reserved.  
 CT Medical Descriptors:  
     \*aorta atherosclerosis: DT, drug therapy  
     \*aorta atherosclerosis: PC, prevention  
 rabbit  
 drug solubility  
 drug effect  
 hyperlipidemia  
 circulation  
 cholecystokinin blood level  
 drug blood level  
 lipid peroxidation  
 blood level  
 drug efficacy  
 disease course  
 drug mechanism  
 drug transport  
 nonhuman  
 animal experiment  
 animal model  
 controlled study  
 article  
 priority journal  
 Drug Descriptors:  
     \*alpha tocopherol derivative: CM, drug comparison  
     \*alpha tocopherol derivative: CR, drug concentration  
     \*alpha tocopherol derivative: DV, drug development

\*alpha tocopherol derivative: DT, drug therapy  
 \*alpha tocopherol derivative: PK, pharmacokinetics  
 \*alpha tocopherol derivative: PD, pharmacology  
 \*alpha tocopherol derivative: PO, oral drug administration  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: CM, drug comparison  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: CR, drug concentration  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: DV, drug development  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: DT, drug therapy  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: PK, pharmacokinetics  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: PD, pharmacology  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: PO, oral drug administration  
 drug metabolite  
 low density lipoprotein: EC, endogenous compound  
 cholesterol: EC, endogenous compound  
 very low density lipoprotein cholesterol: EC, endogenous compound  
 high density lipoprotein cholesterol: EC, endogenous compound  
 thiobarbituric acid reactive substance: EC, endogenous compound  
 unclassified drug  
 RN (cholesterol) 57-88-5

L54 ANSWER 2 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
 AN 2001267539 EMBASE  
 TI In vivo radioprotection by .alpha.-TMG: Preliminary studies.  
 AU Satyamitra M.; Uma Devi P.; Murase H.; Kagiya V.T.  
 CS P. Uma Devi, Department of Research, Jawaharlal Nehru Cancer Hospital,  
 Research Center, Idgah Hills, Bhopal 462001, India  
 SO Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis,  
 (8 Aug 2001) 479/1-2 (53-61).  
 Refs: 29  
 ISSN: 0027-5107 CODEN: MRFMEC  
 PUI S 0027-5107(01)00135-X  
 CY Netherlands  
 DT Journal; Article  
 FS 014 Radiology  
 022 Human Genetics  
 030 Pharmacology  
 037 Drug Literature Index  
 052 Toxicology  
 LA English  
 SL English  
 AB .alpha.-TMG is a novel water-soluble derivative of Vitamin E that has  
 shown excellent antioxidant activity. The parent compound has demonstrated  
 protection against radiation induced chromosomal damage in vivo. Hence,  
 the preliminary experiments to determine the radioprotective activity of  
 .alpha.-TMG were carried out in adult Swiss albino mice. Acute toxicity of  
 the drug was studied taking 24 h, 72 h and 30 day mortality after a single  
 intraperitoneal injection of 500-2000 mg/kg body weight of the drug. The  
 drug LD(50) for 24 h and 72 h/30 day survival were found to be 1120 and  
 1000 mg/kg body weight, respectively. The optimum time of drug  
 administration and drug dose-dependent effect on in vivo radiation  
 protection of bone marrow chromosomes was studied in mice. Injection of  
 600mg/kg of the drug 15min before or within 5, 15 or 30 min after 3 Gy  
 whole body gamma radiation resulted in a significant decrease in the  
 aberrant metaphases percent at 24 h post-irradiation; the maximum effect  
 was seen when the drug was given immediately after irradiation. Injection  
 of 200-800 mg/kg TMG within 5 min of irradiation with 3 Gy produced a

significant dose-dependent reduction in the radiation induced percent aberrant metaphases and in the frequency of micronucleated erythrocytes at 24 h after exposure, with a corresponding decrease in the different types of aberrations. The optimum dose for protection without drug toxicity was 600 mg/kg body weight. At this dose, TMG produced 70 and >60% reduction in the radiation induced percent aberrant metaphases and micronucleated erythrocytes, respectively. The high water solubility and effectiveness when administered post-irradiation favor TMG as a likely candidate for protection in case of accidental exposures. .COPYRG. 2001 Elsevier Science B.V. All rights reserved.

## CT Medical Descriptors:

\*radiation protection  
 \*bone marrow toxicity: ET, etiology  
 \*chromosome aberration: ET, etiology  
 \*chromosome breakage: ET, etiology  
 in vivo study  
 dose time effect relation  
 dose response  
 bone marrow cell  
 gamma irradiation  
 metaphase chromosome  
 drug effect  
 micronucleus  
 erythrocyte  
 drug solubility  
 radiation exposure  
 cell protection  
 cell count  
 mutation rate  
 dicentric chromosome  
 polyploidy  
 nonhuman  
 mouse  
 animal experiment  
 animal model  
 controlled study  
 animal tissue  
 article  
 priority journal

## Drug Descriptors:

\*alpha tocopherol derivative: DO, drug dose  
 \*alpha tocopherol derivative: TO, drug toxicity  
 \*alpha tocopherol derivative: PD, pharmacology  
 \*alpha tocopherol derivative: IP, intraperitoneal drug administration  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: DO, drug dose  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: TO, drug toxicity  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: PD, pharmacology  
 \*2 (alpha dextro glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6  
 ol: IP, intraperitoneal drug administration  
 \*radioprotective agent: DO, drug dose  
 \*radioprotective agent: TO, drug toxicity  
 \*radioprotective agent: PD, pharmacology  
 \*radioprotective agent: IP, intraperitoneal drug administration  
 unclassified drug

L54 ANSWER 3 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

AN 1998004052 EMBASE

TI Antioxidant activity of a novel vitamin E derivative, 2-(.alpha.-D- glucopyranosyl)methyl-2,5,7,8-tetramethylchroman

-6-ol.

AU Murase H.; Moon J.-H.; Yamauchi R.; Kato K.; Kunieda T.; Yoshikawa T.;  
Terao J.

CS H. Murase, CCI Corporation, 12 Shinhazama, Seki City, Gifu 501-32, Japan

SO Free Radical Biology and Medicine, (1998) 24/2 (217-225).

Refs: 41

ISSN: 0891-5849 CODEN: FRBMEH

PUI S 0891-5849(97)00221-9

CY United States

DT Journal; Article

FS 029 Clinical Biochemistry

037 Drug Literature Index

LA English

SL English

AB A novel vitamin E derivative, 2-(.alpha.-D-  
glucopyranosyl)methyl-2,5,7

,8- tetramethylchroman-6-ol (TMG),

has excellent water-solubility ( $> 1 \times 10^3$  mg/ml) The antioxidant activity of TMG was investigated. Kinetic studies of the inhibition of radical-chain reaction of methyl linoleate in solution demonstrated that the peroxy radical-scavenging activity was not changed by the replacement of phytyl side chain of vitamin E to glucosyl group. TMG acted as an effective inhibitor on lipid peroxidation of egg yolk phosphatidylcholine (PC)-liposomal suspension induced by a water-soluble and a lipid-soluble radical generator, 2,2'-azobis(2- amidinopropane)dihydrochloride (AAPH) and 2,2'-azobis(2,4- dimethylvaleronitrile) (AMVN) Its effectiveness was higher than that of ascorbic acid (AsA) when liposomal suspension was exposed to a lipid-soluble radical generator, AMVN TMG also showed an excellent antioxidant activity on cupric ion-reduced lipid peroxidation of PC-liposomal suspension, and suppressed the oxidation of rat brain homogenate which contained trace level of iron ion. On the other hand, AsA acted as a prooxidant on both the cupric ion-induced liposomal peroxidation and the oxidation of rat brain homogenate. When human plasma was exposed to either AAPH or AMVN, the accumulation of cholesteryl ester hydroperoxides was retarded by the addition of TMG.

CT Medical Descriptors:

\*antioxidant activity

solubility

lipid peroxidation

structure activity relation

inhibition kinetics

brain homogenate

nonhuman

rat

animal tissue

animal cell

article

priority journal

Drug Descriptors:

\*liposome

\*antioxidant: DV, drug development

\*antioxidant: PD, pharmacology

\*alpha tocopherol derivative: DV, drug development

\*alpha tocopherol derivative: PD, pharmacology

\*2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DV, drug development

\*2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PD, pharmacology

linoleic acid methyl ester

free radical

2,2' azobis(2 amidinopropane)

2,2' azobis(2,4 dimethylvaleronitrile)

cholesterol ester

unclassified drug  
RN (linoleic acid methyl ester) 112-63-0; (2,2' azobis(2 amidinopropane))  
13217-66-8  
CO Eisai (Japan); Wako (Japan)

L54 ANSWER 4 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
AN 97039193 EMBASE  
DN 1997039193  
TI Synthesis of a novel vitamin E derivative, 2-(.alpha.-  
D- glucopyranosyl)methyl-2,5  
,7,8-tetramethylchroman-6-  
ol, by .alpha.-glucosidase- catalyzed transglycosylation.  
AU Murase H.; Yamauchi R.; Kato K.; Kunieda T.; Terao J.  
CS H. Murase, CCI Corporation, 12 Shinhazama, Seki City, Gifu 501-32, Japan  
SO Lipids, (1997) 32/1 (73-78).  
Refs: 27  
ISSN: 0024-4201 CODEN: LPDSAP  
CY United States  
DT Journal; Article  
FS 029 Clinical Biochemistry  
030 Pharmacology  
037 Drug Literature Index  
LA English  
SL English  
AB A novel derivative of vitamin E, vitamin E glucoside, was synthesized from  
2-hydroxymethyl-2,5,7,8-tetramethylchroman-6-ol and maltose in a solution  
containing DMSO by transglycosylation with .alpha.-glucosidase from  
Saccharomyces species. The glycosylated product was identified as  
2(.alpha.-D- glucopyranosyl)  
methyl-2,5,7,8-  
tetramethylchroman-6-ol (TMG) by mass  
spectrometry and nuclear magnetic resonance spectroscopy. The optimal pH  
of transglycosylation was 5.5, and the yield of TMG increased as the  
concentration of maltose increased. TMG has high solubility in water (>1 x  
103 mg/mL). The 1,1-diphenyl-2-picrylhydrazyl radical scavenging activity  
of TMG was found to be nearly the same as those of .alpha.-tocopherol,  
Trolox (2- carboxy-2,5,7,8-tetramethylchroman-6-ol), and ascorbic acid.

CT Medical Descriptors:  
\*glycosylation  
article  
catalysis  
controlled study  
drug activity  
drug solubility  
drug structure  
drug synthesis  
ph  
Drug Descriptors:  
\*2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: AN,  
drug analysis  
\*2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: CM,  
drug comparison  
\*2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: DV,  
drug development  
\*2 (alpha glucopyranosyl)methyl 2,5,7,8 tetramethylchroman 6 ol: PD,  
pharmacology  
\*alpha glucosidase  
\*alpha tocopherol: PD, pharmacology  
\*alpha tocopherol: CM, drug comparison  
\*alpha tocopherol: AN, drug analysis  
\*alpha tocopherol derivative: AN, drug analysis  
\*alpha tocopherol derivative: CM, drug comparison  
\*alpha tocopherol derivative: PD, pharmacology

\*alpha tocopherol derivative: DV, drug development  
\*ascorbic acid: CM, drug comparison  
\*ascorbic acid: PD, pharmacology  
\*trolox c: PD, pharmacology  
\*trolox c: CM, drug comparison  
\*trolox c: AN, drug analysis  
2 hydroxymethyl 2,5,7,8 tetramethylchroman 6 ol  
antioxidant  
chroman derivative  
free radical  
maltose  
scavenger  
unclassified drug

RN (alpha glucosidase) 9001-42-7; (alpha tocopherol) 1406-18-4, 1406-70-8,  
52225-20-4, 58-95-7, 59-02-9; (ascorbic acid) 134-03-2, 15421-15-5,  
50-81-7; (trolox c) 56305-04-5; (maltose) 16984-36-4, 69-79-4  
CO Aldrich (United States); Eisai (Japan)

=> d his

(FILE 'HOME' ENTERED AT 18:33:42 ON 22 JAN 2003)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 18:33:57 ON 22 JAN 2003

L1 STR  
L2 38 S L1 CSS  
L3 2795 S L1 CSS FUL  
SAV L3 FONDA890/A  
L4 STR L1  
L5 0 S L4 CSS SAM SUB=L3  
L6 STR L4  
L7 1 S L6 CSS SAM SUB=L3  
L8 38 S L6 CSS FUL SUB=L3  
SAV L8 FONDA890A/A  
L9 24 S L3 AND OC5/ES NOT L8  
L10 STR L6  
L11 59 S L10 CSS FUL SUB=L3  
SAV L11 FONDA890B/A  
L12 21 S L11 NOT L8  
L13 4 S L9 NOT L12  
L14 STR  
L15 0 S L14 SAM SUB=L3  
L16 4 S L14 FUL SUB=L3  
L17 2 S L16 NOT (MXS/CI OR C29H50O2)  
L18 23 S L12,L17  
SAV L18 FONDA890C/A

FILE 'HCAOLD' ENTERED AT 18:44:14 ON 22 JAN 2003

L19 0 S L18

FILE 'HCAPLUS' ENTERED AT 18:44:18 ON 22 JAN 2003

L20 42 S L18  
E CCI/PA,CS  
L21 28 S E3-E34 AND L20  
E YOSHIKAWA T/AU  
L22 272 S E3  
E YOSHIKAWA TOSHIKAZU/AU  
L23 661 S E2,E3  
E MURASE H/AU  
L24 26 S E3  
L25 47 S E25  
L26 1 S E27

L27           E YOSHIDA N/AU  
395 S E3,E4  
E YOSHIDA NORIMASA/AU  
L28           165 S E3  
L29           32 S L20 AND L22-L28  
L30           3 S L20 AND ?ARTERIO?  
E ANTIARTERIO/CT  
L31           5486 S E6,E7  
E E6+ALL  
E E6+ALL  
L32           26978 S E5+NT  
L33           2 S MONKEBERG? (L) ?SCLERO?  
L34           3 S L20 AND L31-L33  
L35           3 S L30,L34  
L36           19 S 2 ALPHA D GLUCOPYRAN? METHYL 2 5 7 8 TETRAMETHYLCHROMAN 6 OL

FILE 'REGISTRY' ENTERED AT 18:49:05 ON 22 JAN 2003

L37           1 S 160455-95-8  
L38           0 S 160455-95-8/CRN

FILE 'HCAPLUS' ENTERED AT 18:49:32 ON 22 JAN 2003

L39           36 S L37  
L40           37 S L36,L39  
L41           43 S L20,L29,L30,L35,L40  
L42           40 S L41 AND (PD<=20011009 OR PRD<=20011009 OR AD<=20011009)  
L43           3 S L41 NOT L42

FILE 'REGISTRY' ENTERED AT 18:51:25 ON 22 JAN 2003

L44           22 S L18 NOT L37

FILE 'HCAPLUS' ENTERED AT 18:52:06 ON 22 JAN 2003

FILE 'EMBASE' ENTERED AT 18:52:44 ON 22 JAN 2003

L45           0 S L18  
L46           3 S L36  
L47           2 S "2 (ALPHA DEXTRO GLUCOPYRANOSYL)METHYL 2,5,7,8 TETRAMETHYLCHR  
L48           2 S "2 (ALPHA GLUCOPYRANOSYL)METHYL 2,5,7,8 TETRAMETHYLCHROMAN 6  
L49           4 S L46-L48  
E ARTERIOSCLEROSIS/CT  
L50           54293 S E3+NT  
E E3+ALL  
L51           116000 S E6+NT  
L52           1 S L49 AND L50,L51  
L53           1 S L49 AND (?ARTERIO? OR ?ATHEROSCL?)  
L54           4 S L49,L52,L53

FILE 'EMBASE' ENTERED AT 18:56:09 ON 22 JAN 2003